ASL

Australian Society for Limnology Inc.

NEWSLETTER

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AUSTRALIAN SOCIETY FOR LIMNOLOGY INC.

The Australian Society for Limnology (ASL) is an Australian-based scientific society whose focus is the study and management of inland waters. The ASL was established in 1961, and has a current membership of over 650 researchers, managers, engineers, teachers and tertiary level students from all states and territories. Members have a strong professional interest in inland aquatic issues, including the maintenance of biodiversity, the maintenance and/or restoration of water quality, and the wise use of aquatic resources. The Society also has a strong interest in fostering the scientific and intellectual development of tertiary students.

The Society includes members working in government agencies, tertiary institutions and many industries related to aquatic resources. Through their daily activities, members have contact with local communities and are in a sound position to interpret and advise on inland water issues. The Society has a substantial knowledge base, and has assumed a responsibility to ensure that this is available to those who manage inland waters.

Accordingly, the charter of the ASL is to further our understanding of Australia's inland waters and to promote their wise use and sustainable management. In this manner we will contribute to the continued existence of this valued resource and the maintenance and enhancement of the quality of life for all Australians. The ASL regularly produces a newsletter with notes on limnological activities, articles of interest, book reviews and announcements of upcoming events likely to be of interest to Members.

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Material for publication in the **Volume 41 # 4 Issue** of the Newsletter should be sent to the Editor (Address on back page) by **Friday 21st November 2003.**

Volume 42 # 1 contributions are due **Friday 26th March 2004.**

All articles should be forwarded, if possible, as unformatted text on a disk or via email.

ASL Home Page - http://www.asl.org.au/

This Newsletter is printed by Border Multi Print Pty Ltd Wodonga, packaged by Kalianna Pty Ltd and distributed by Australia Post.

Membership Information and contact details of the Regional Executive Members can be found at the back of this Newsletter.

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FROM THE (NAUGHTY) EDITOR

Imagine my surprise one morning after the June edition had been sent out, to find the following email.....

MAILGUARD® E-MAIL FILTER ALERT

MAILGUARD™

Hello,

An e-mail message has recently been sent with these details:

Date: June 11 2003, 9:47AM
From: rhonda.sinclair@csiro.au
To:
Subject: Emailing: ASL June 2003

This message has been QUARANTINED by the MailGuard service for the following reason:
The message, or one of its attachments contained OFFENSIVE LANGUAGE.

My first reaction was to re-read the June edition of POSTCARD (now offence Tim !), but alas, nothing in there - can only guess it must have been the usage of GST, TAX-FREE, BAS acronyms.

Now on occasions I have been know to be a little offensive, but if anyone can find the section in the last newsletter that cited OFFENSIVE LANGUAGE, please let me know!!!

Did you know that September is Biodiversity Month??? and Sunday 7th September is National Threatened Species Day (hang on, it's also Father's Day !!) - but I won't make any comment.

It's now time to start thinking about the next issue, due out in early December. Please send me news, updates and progress reports about your projects. Let me know how your seminars and meetings went. Tell me about people you know who are doing interesting work. Let me know about new publications, good websites, conferences, seminars etc.

Deadline for contributions is 21 November. I look forward to hearing from all of you.

Cheers

Rhonda

PRESIDENT'S REPORT

Greetings all,

Spring teeters on the edge, promising the start of another active field season. By now, many of you will have already sent in your abstracts for the annual conference in Warrnambool and be bracing yourself ready to savour the conference highlights from the Door Prize report to the ASL Medal and Early Career Excellence Award speeches. And speaking of ASL Medals, it is my pleasure to announce that Max Finlayson is this year's winner and will be presenting his address in December.

A couple of things to bring to your attention. The first is the issue of the ASL Membership Directory being on the web. Margaret Hart, Simon Josey, and Shane Mortenson have been working through setting up the Directory in a format that could be put on the web in such a way that members could automatically update their own details. This process of preparation for the web is nearing completion but we need to consider as a Society the issue of confidentiality once this material goes onto the web. We discussed this at a recent teleconference of the Executive and concluded that the decision to list members' details on a web-based version of the Membership Directory is probably one that needs to be taken by each member. See Page 10 of this newsletter, and on the list-server, for a survey to assess general opinion and we shall discuss this at the AGM in December. Meanwhile, I am happy to field questions and comments about this issue.

The second issue is attendance at "Science meets Parliament" in Canberra. Water issues are firmly on the agenda this year and you can check out the details on the FASTS homepage http://www.fasts.org/ SmP is on October 14-15th this year, and ASL is seeking to have 15-20 members attend. Some of our members who are involved in various CRCs (e.g. CRCFE, CRCCH) will be going as CRC members but we also hope they will be willing to represent ASL. If you plan to go and are funded by a CRC or other agency/University yet would be happy to also represent ASL, please let Sabine Schreiber, Rhonda Sinclair, Frederick Bouckaert or myself know as soon as possible, along with some details of the interests that you wish to discuss. For example, I shall be going funded by the University of New England and plan to discuss groundwater dependent ecosystems, higher education issues in limnology, and general issues about river ecology and management.

If you would like to represent ASL at SmP but would need some financial assistance, please email me an **Expression of Interest** by **Friday 19th September**. Outline the issues you wish to raise, make a short case as to how your involvement would serve Australian limnology, and give an estimate of the financial support you seek. Currently, ASL has approximately $2K to support this involvement so we obviously want to maximise our value for money. The registration cost is $198 (or for a postdoc/student $99) payable by 30 September (after which an extra $100 late booking fee kicks in) so we would be able to at least pay 'early bird' registration. Discussions with FASTS and the Executive have also emphasised that we want to encourage younger members to attend.

And finally, keep thinking about nominating worthy candidates for this year's ASL Early Career Excellence Award, and get those to me by the end of October. See the ASL website for details of the Award.

Cheers

Andrew

ASL Executive Teleconference held on 26 August 2003

Present: A. Boulton, M. Hart, S. Treadwell, S. Josey, P. McEvoy, S. Schreiber, R. Sinclair, F. Bouckaert, N. Rea, J. Chambers, I. Growns and R. Marchant
Apologies: J. Marshall, J. Gooderham and M. McGuire

1. ASL membership directory on the web: If the ASL membership directory is placed on the Society's web site, members can readily update their details and search the directory for specific information. These are seen as major advantages. However, confidentiality of the information may become an issue. Shane Mortenson, who has been helping M. Hart and S. Josey with this initiative, suggested that access to the ASL directory on the web could be controlled by a password. Other information on the web site that could be seen as confidential (e.g. financial matters or minutes of Executive meetings) could also be protected by password. After some discussion it was decided that members will be asked whether they want their details (postal and email addresses, phone numbers) on the web site when the next directory is being assembled. If they don't want such details distributed on the web, then this information will only go into the hard copy of the membership directory, which will be maintained for the time being. A notice about these matters will go into the next newsletter stressing that all personal details on the web will be password protected and surveying members' opinions. [S. Josey drafted together a survey form that has been adopted].
2. ASL attendance at Science meets Parliament: According to FASTS, water issues are high on the Federal Government's agenda, as is the role of young (<40 yo) scientists. A. Boulton is keen for 15-20 members to attend and represent ASL at this event in October. He asked members of the Executive to email him names of members who might be interested, particularly those who could discuss salinity, nutrient enrichment and other such disturbances. The Society has a small amount in its budget ($2000) that could be used to support attendance. F. Bouckaert noted that the ASL's interaction with FASTS should be consistent and suggested that the ASL designate a FASTS representative. R. Sinclair offered to help organise SmP and this was accepted.
3. Rules for the Bill Williams Travel Scholarship: Various drafts of these rules have been circulated to the Executive by the Secretary. The feedback he received has been very helpful in producing a final draft, which will be sent to R. Sinclair for inclusion in the next newsletter. It is hoped that there will be an opportunity to award the first of these by December, and announce the successful applicant at the Annual Congress this year.
4. Early Career Excellence Award: Further nominations are encouraged and A. Boulton asked each state rep. to think about nominating at least one member. A reasonable pool of nominations is needed to give some momentum to the award. He asked that all nominations be sent to him by the end of October.
5. Joint ASL Congresses: The ASL has recently been approached by the Australian Society for Ecotoxicology suggesting the two societies hold a joint meeting, probably after 2005. It seemed to the Executive that back-to-back conferences with perhaps one day when common themes are discussed would be the most suitable model. A. Boulton will pursue this matter with the President of ASEcotox.
6. J. Neville's policy document: Jon needs some feedback from the ASL about this document. S. Schreiber (policy document officer) will write on behalf of the Executive to Jon about his report and encourage him to submit it as soon as possible to the Society.

FROM THE WEBMASTER

The ASL email list encourages discussion of limnological issues and facilitates the rapid transfer of information to members of the ASL. Subscribing is easy for those of you who wish to receive emails posted to the list.

For those currently subscribed to the ASL email list - if you haven't received any emails from the ASL email list in the last few weeks, then it is likely that you are not subscribed to the ASL email list in its new location.

You can subscribe to the ASL email list at its new location by one of the following methods:

* Visit http://groups.yahoo.com/group/asl-org-au/join/
If you already have a YahooID, then sign in, or click on 'Sign up now'. Follow the instructions, chosing a YahooID, password, security questions, etc. You will then get emailed a confirmation. Click on the verification link.

or

* Send a blank email to asl-org-au-subscribe@yahoogroups.com and then clicked 'reply' to the automated email that is sent to you.

You should then receive a 'Welcome' email with instructions on using the ASL email list.

If you have tried these methods, and are either not sure that you are subscribed, or are having trouble subscribing despite following the instructions above, then please email me.

Cheers

Simon Josey
ASL webmaster
email: webmaster@asl.org.au

CRITICAL SURVEY FOR ASL MEMBERS ~ MEMBER DATABASE

BACKGROUND

The ASL Executive has recently been discussing the feasibility of putting the ASL member database on the Web in a secure manner so that members may easily update their details. There would also be an option for a secure, up-to-date, electronic Members' Directory to be available for ASL members only, and for ASL members to find and contact other ASL members with similar interests using electronic searching, rather than the current method of scanning through the extensive, currently printed, ASL Members' Directory. Below we have a survey that we wish members to take so that we can gauge the Society's feeling about this important issue.

Arguments For Online Database	Arguments Against Online Database
• Easy for members to update details. • Reduce workload of membership officer. • Easy for members to find and contact members with similar interests or of particular expertise. • Other societies of similar size are successfully using similar online membership directories/databases.	• Hackers may be able to access membership details, especially email addresses. • Concerns about privacy issues of individual members.

TECHNICAL INFORMATION

- Members will be emailed individual passwords so that they can update only their own details.
- The database will be held on a secure server. Access will be via 128-bit encryption - so that information and passwords will not be able to be intercepted by hackers monitoring people accessing the site.
- Members will be able to choose what details they would like to be available about themselves in the membership directory.
- The membership directory can be emailed to members in an encrypted Acrobat format, so that it can be viewed or printed, but not copied (or alternatively, it could be set up so that it could not be printed).
- Every effort will be made by the ASL executive and the IT service to keep the membership database secure and private from non-ASL members.

SURVEY (TO BE COMPLETED BY MEMBERS)

- Would you be interested in being able to update your membership details on the Web?

☐ Definitely interested | ☐ Slightly interested | ☐ Not sure/Neutral | ☐ Strongly opposed

- How would you feel if some of your membership details were available for other members to view on the Web in an electronic membership directory? (Currently details are available in the printed Members' Directory)

☐ Comfortable | ☐ As long as I can state what details are available | ☐ Not sure/Neutral | ☐ Strongly opposed

- How would you feel about your membership details being on the Web? (albeit in a secure, encrypted environment that only you and the ASL membership officer can access)

☐ Comfortable | ☐ As long as I can state what details are available | ☐ Not sure/Neutral | ☐ Strongly opposed

Your Name:

Any Other Comments:

If you wish to restrict what details are available in the membership directory, please select below which details you would permit to be listed.

Name ☐
Address ☐
Workplace ☐
Interests ☐
Phone/fax no. ☐
Email address

Please post, fax or email this Survey to the ASL Membership Officer, Margaret Hart
Fax: (03) 9590 0550 Postal address: PO Box 605, Mulgrave VIC 3170
email: Margaret.Hart@sci.monash.edu.au

BILL WILLIAMS TRAVEL SCHOLARSHIP (BWTS)

Applications are invited from research students for financial assistance in the form of the Bill Williams Travel Scholarship (BWTS) to enable them to present a paper or poster at an overseas conference, symposium or workshop. Bill Williams was a founding member of the Australian Society for Limnology, a leading pioneer of limnological research in Australia, and widely known both inside and outside the country for his advocacy of the study of inland waters. He was very conscious of the need to encourage international exchange amongst limnologists, hence the inauguration of this scholarship.

The purpose of this scholarship is to enable research students to present their work in an international forum. Students who are carrying out research in any branch of limnology for a postgraduate degree (but not an Honours degree) are eligible to apply. The following rules apply:

1. Applicants must be current full-time postgraduate students at any Australian University or have submitted their thesis within 12 months of applying for the BWTS.

2. Applicants must have been members of the ASL for at least 12 months and have current financial membership.

3. The BWTS will be awarded by a committee consisting of the ASL President, the ASL Treasurer, and a representative of the Bill Williams Memorial Committee.

4. Applications must include a written statement (no more than one A4 page) describing the research, its significance, and the stage that has been reached. The statement must be endorsed by the student's supervisor, who should confirm that the student has reached a stage where something useful can be presented. An abstract of the paper that the applicant proposes to present must also be included, and the presentation must acknowledge the scholarship in full. A CV should be included.

5. Applicants must submit a budget indicating the various costs of their trip. This should indicate how the scholarship will be used and what other support they hope to obtain. The intention is that the scholarship will cover a substantial amount of their costs. e.g. an airfare.

6. Award of the scholarship will be judged on: (i) significance of the work; (ii) originality and soundness of the research; (iii) the progress made; (iv) ability to present a clear and concise statement of the study.

One scholarship will be awarded this financial year (2003-04) and the hope is to make an award once every two years.

Applications should be sent to Dr R. Marchant,
ASL Secretary, Museum of Victoria
GPO Box 666E, Melbourne VIC 3001
by 31 October 2003.

A Memorial Symposium and Field Trip in Honour of Bill Williams

Theme: Ecology and Management of Australia's Water Resources in the Next Two Decades: 2020 Vision or Blind Faith?

Coordinators: Mike Geddes, Andrew Boulton, Patrick DeDeckker, Russ Shiel and Rowl Twidale.

Program:

Friday 28th November 2003 Venue: The National Wine Centre, North Terrace, Hackney
9:00 - 5:30 The symposium will open with a keynote address from Peter Cullen and have eight to ten 20 minute presentations on the ecology and management of aquatic environments plus time for discussion in a workshop format.
7:00 - 11:00.Bill Williams Dinner (National Wine Centre).

Saturday 29th November 2003
Field Trip Adelaide to Warrnambool.
9:00 Bus departs The University of Adelaide.
Ferry across the Murray River.
Morning tea at Long Point (Coorong).
Lunch Salt Creek (Coorong). (all accommodation & meals own cost
Afternoon Tea Cantara Homestead (Coorong). Morning/afternoon teas provided)
6:30 Kingston or Robe for dinner.
Overnight Kingston or Robe—Hotel or Motels.

Sunday 30th November 2003
10:00 Salt Lakes: Robe to Beachport.
Morning tea at Beachport.
Lunch at Mount Gambier.
6:00 Arrive Warrnambool *(accommodation as for ASL).*

Monday 1st December 2003
Stay for the Joint ASL/NZLS meeting or return by bus to Adelaide.
The ASL meeting at Warrnambool will run from Monday 1st December to Friday 5th December 2003. It will include a further tribute to Bill Williams and a field trip that will visit salt lakes in western Victoria.

For additional inform, please email: mike.geddes@adelaide.edu.au You must register by 1 October or earlier.

Dr Mike Geddes, Dept of Environmental Biology, The University of Adelaide
Tel 08 8303 5934 Fax 08 8303 6222

Reminder from Marine and Freshwater Research

ASL members can subscribe, through the Society, to the online edition of *MFR* at a discounted rate - under $100 for a full year's subscription, which includes over 1,000 pages of current scientific papers and online access to all papers published since 1997. This offer is available for the 2004 volume of *MFR*. Contact the Society for further details.

I encourage your submissions to *MFR* and look forward to being able to work with you in the future.

Dugald McGlashan
Managing Editor, *Marine and Freshwater Research*
Email: dugald.mcglashan@csiro.au

* * * ANNOUNCEMENT * * *

"The *Marine and Freshwater Research* Prize for the Best Interdisciplinary Poster"

This prize has been instigated to further the links between the ASL and *MFR*. The aim is to encourage studies that have a demonstrated 'interdisciplinary' connection, which is a major focus of the journal. The reward will go to the poster presentation that impresses the judging panel the most in this regard.

The panel will be made up of the President of the ASL, the Managing Editor of *MFR* and a mutually agreed third person. All members of the ASL are eligible for the prize. The prize is a years subscription to MFR, and the prize-winner will be encouraged to submit a manuscript to *MFR* for consideration.

Australian Society for Limnology and
New Zealand Limnological Society Joint Congress

(42nd Annual ASL Congress)
1 - 5th December 2003

JOINT CONGRESS ASL/NZLS ~ WARRNAMBOOL 2003

HAVE YOU REGISTERED????

Register on-line at http://www.asl.org.au/asl_congress_2003.htm

All positions for the Executive and Regional Executive Members are now open for nominations.

Members will be elected at the Warrnambool Congress.

Congratulations

Australia Museum Eureka Prize Winners: John Gooderham and Edward Tsyrlin

Reed New Holland Eureka Science Book Prize "The Waterbug Book"

Two Melbourne researchers (and ASL MEMBERS) have written an accessible and comprehensive guide to yabbies, water boatmen, snails, clams, worms, shrimps and all the other beasts that live in the rivers, streams, ponds and wetlands across temperate Australia.

The Waterbug Book features hundreds of colour photos, instructions on recognition, notes on making fishing flies, and a practical guide to measuring the health of your local stream. It has won authors **John Gooderham** and **Edward Tsyrlin** the Reed New Holland Eureka Science Book Prize.

"Every kid should have the opportunity to muck around in creeks and dams.

We hope our guide will help them appreciate and slap names on what they're seeing, such as hundreds of waterbugs engage in mortal combat with spikes, spears, Alien-like mouthparts, scimitar-like legs, and armour plating. Then there's the beauty of watching insects take their first flight as they leave their grub skins behind in the water," says Gooderham.

Healthy waterbugs suggests healthy water-and the streams that supply Melbourne's water, for example, are some of the healthiest in the world. "They're close to pristine. We see 25 to 30 families of waterbugs in a sample, and hundreds of species," says Gooderham.

Gooderham lectures internationally and works on a range of community education programs. Tsyrlin is a professional taxonomist and acts as Waterwatch Coordinator for the Merri Creek Management Committee. His passion for healthy streams has contributed to the restoration of the Merri Creek, the third largest sub-catchment of Melbourne's Yarra River.

The Reed New Holland Eureka Science Book Prize is a $10,000 prize, awarded to an Australian author whose book is outstanding in its presentation of a scientific subject or subjects and communicates to the general public in an interesting and exciting way.

"This book clearly demonstrates that waterbugs matter," says Professor Mike Archer, Director of the Australian Museum.

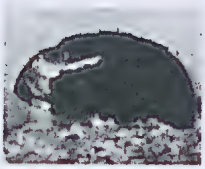
"The Australia Museum Eureka Prizes raise the profile of science in the community by acknowledging and rewarding outstanding achievements in scientific research, application, education, writing and journalism," he says.

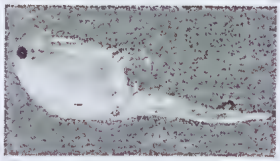
The Waterbug Book is published by CSIRO Publishing, http://www.publish.csiro.au/

15th TAXONOMY and ECOLOGY WORKSHOP

Tuesday 10th and Wednesday 11th February 2004

Mussels (Bivalvia), Fairy Shrimps (Anostraca),
Caddis Flies (Trichoptera),
Lacewings & Spongeflies (Neuroptera),
Dragonflies & Damselflies (Odonata) & Fish larvae





SPEAKERS

Keith Walker, Brian Timms, Tim New, John Dean,
Ros St Clair, Gunther Theischinger, John Hawking,
Paul Humphries and Luciano Serafini

The Murray-Darling Freshwater Research Centre

VENUE

Lake Hume Resort, via Albury

Preliminary Workshop Program

MONDAY 9TH FEBRUARY 2004

1800-2100	Registration & Pre-Workshop drinks, Restaurant Bar, Lake Hume Resort

TUESDAY 10TH FEBRUARY 2004

080-0900	Registration, Conference Centre, Lake Hume Resort
0900-0915	Official opening "Welcome address", **Ben Gawne** (Director, MDFRC)
0915-1015	Session 1. An introduction to the taxonomy and ecology of the aquatic Lacewings & Spongeflies (Neuroptera) of Australia **Tim New** (La Trobe Univ.)
1045-1245	Session 2. An introduction to the taxonomy and ecology of Australian Fairy Shrimps (Crustacea, Anostraca) **Brian Timms** (Uni. of Newcastle)
1330-1500	Session 3. Identification of the Australian freshwater Mussels (Bivalvia) **Keith Walker** (Uni. of Adelaide)
1530-1700	Session 4. Identification of adult Dragonflies & Damselflies (Odonata) from south-eastern Australia **Gunther Theischinger** (EPA, NSW)
1900	Evening session. Barbecue pit, Lake Hume Resort.

WEDNESDAY 11TH FEBRUARY 2004

0900-1030	Session 5. Identification of the families of Australian Caddis fly larvae (Trichoptera), **John Dean & Ros St Clair** (EPA, Vic.)
1100-1230	Session 6. Identification of the genera of Australian Caddis fly larvae (Trichoptera), **John Dean & Ros St Clair** (EPA, Vic.)
1330-1500	Session 7. Identification of some Australian fish larvae **Paul Humphries & Luciano Serafini** (MDFRC/Monash Univ.)
1530-1700	Session 8. Identification of larval Dragonflies & Damselflies from south-eastern Australia **John Hawking** (MDFRC/CRCFE)

VENUE: Lake Hume Resort, 52 acres of parkland on the shores of Lake Hume at Hume Dam, 10 km east of Albury, along the Riverina Highway, at Hume Dam, NSW.

COSTS: Registration fee includes lunches, morning and afternoon teas, handouts, Identification Guides and Tuesday evening barbeque. The guides will also be available for purchase by non-attendants.

ACCOMMODATION: Accommodation is available on-site at the conference venue. The Lake Hume Resort has both Motel and Heritage Workers Cottages. Participants should arrange their accommodation directly through the Lake Hume Resort. When booking participants should mention the Taxonomy Workshop and you will receive a **10% discount.**

Motel: 20 rooms of the 26 motel unit complex comprise of a double and single bed, full ensuite Motel Units 3 Star, comprising, Single/Twin/Double - 1 or 2 persons or Triple - 3 persons rooms. Breakfast is available at the Resort.

Heritage Workers Cottages: There are 37 cottages, each have been compared in size with the average family home. The cottages have either 2 or 3 bedrooms. Each cottage has a full sized kitchen, complete with oven, basic cooking utensils, kettle, toaster, crockery, cutlery, fridge, air-conditioner, colour television, telephone, separate toilet, shower/bath. Beds have pillows and light doonas, but no linen. Linen can be hired from the Resort or you can bring your own. The Heritage Workers Cottages are 3 ½ Star. Tariff is based on 2 adults per night including GST. All have 1 Double Bed and 4 Single Beds (some Bunks). Breakfast is available at the Resort.

Breakfast: Continental and full breakfast are available at the Lake Hume Resort Restaurant.

Bookings and enquires: Ph: (02) 6026 4444 Reservations 1800 021 929 or Fax (02) 6026 4572, Email: reservations@lakehumeresort.com.au, PO Box 626 (Riverina Highway) Albury NSW 2640 or visit the Lake Hume Resort web site: www.lakehumeresort.com.au

ENQUIRES: Further information can be obtained from The Murray Darling Freshwater Research Centre Reception Ph: (02) 6058 2300 or email: enquiries@alb.clw.csiro.au **or John Hawking,** John.Hawking@csiro.au

Registration Form / Tax Invoice

15th Taxonomy and Ecology Workshop ABN 41687119230

~~~~~~~~~~~~~~~~~~~~~~~~~

Name: _____

Institution: _____

Postal Address: _____

_____

State: _____ Post Code: _____

Email: _____

Phone: _____ Fax: _____

REGISTRATION COSTS, All costs include 10% GST

Ordinary Participants		Full Time Students	
Both days $300		Both days $260	
Day 1 only $160		Day 1 only $145	
Day 2 only $160		Day 2 only $145	

TOTAL		TOTAL	

Tuesday Nights BBQ included in cost of registration. Vegetarians please tick ☐

Payment: Cheques to be made out to CSIRO, Collector of Public Moneys and sent to:

15th Taxonomic Workshop, C/- Pamela Rowen, CSIRO Land & Water, PMB 2 Glen Osmond SA 5064 Australia, or by credit card, *faxed to 08 8303 8590*, both by Friday 9th January 2004. In the event of a cancellation of registration, all monies paid to the conference organizers will be returned, except for a cancellation fee of $40.

☐ Visa ☐ Mastercard ☐ Bankcard ☐ Cheque ☐ Cash

Name on card _____ Expiry date ___/___ Total $_____

Card No ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

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SCUTTLEBUTT, RUMOUR AND PRATTLE

ARTHUR RYLAH INSTITUTE FOR ENVIRONMENTAL RESEARCH, DEPARTMENT OF SUSTAINABILITY AND ENVIRONMENT

With spring fast approaching the bug group (**Phil Papas, Di Crowther, Mike Nicol, Shanaugh McKay** and **Sabine Schreiber**) will soon be getting their waders wet for another field work season. This spring will be the final field trip up to Eden/Merimbula region for a State Forests of NSW project. It will be a sad occasion for **Di** and **Shanaugh** who have become very familiar with the beautiful streams of the region and also the many local pubs and bakeries. We highly recommend the Bemboka Pie Shop and the Robbie Burns hotel in Wyndham. **Phil** will be spending a fair deal of his time over the next two years working on a new NAP (= National Action Plan for Water Quality and Salinity)-funded project to develop a wetlands assessment system that will link in with two other NAP wetland projects under way in the Freshwater Ecology group, including one headed by Sabine investigating whether thresholds in ecological structure and function exist in Victorian non-riverine wetlands, whether patterns can be recognised in relation to changes in salinity, and how this knowledge can best be used in managing biodiversity in these wetlands.

Once **Belinda Cant** returns from a holiday in the sun she also will be involved in this project. Other projects that the bug group are getting their teeth into are an assessment of the impacts of different forest management practices on aquatic biodiversity in the Croppers Creek catchment of NE Victoria and examining biotic effects of varying flows in an unregulated catchment. The bug group are looking forward to presenting a number of projects at this years' congress at Deakin University in Warrnambool (**Shanaugh** and **Mike's** old stomping ground).

Other ARI ASLers also have been busy with a large contingent (**Jarod Lyon, John Koehn, David Crook, Ivor Stuart, Charles Todd**) visiting New Zealand for the recent Australian Society for Fish Biology conference held there. **Wayne Koster** has been busy around the state assessing fish populations in response to various structures and events, such as fishways, weirs, resnagging, tunnelling, desilting and of course the bushfires!

Finally, some news from our lone plant ASLer, **Keely Ough** (part of the Fauna contingent at ARI) as she finds a brief moment to lift her head from her experimental tubs, as she has finished killing plants and is getting into the writing-up phase of her PhD (Response of wetland plants to increased salinity). Keely will also be drawn into one of the NAP projects once her PhD commitments subside.

From

Sabine Schreiber

CENTRE FOR RIVERINE LANDSCAPES, GRIFFITH UNIVERSITY, BRISBANE

The Centre for Catchment and In-stream Research is no longer and we are now part of the much larger Centre for Riverine Landscapes (CRL). CRL is a Griffith University initiative to create centres of research excellence across the university. CRL is one of five such centres. The vision of CRL is "To gain world-wide recognition for excellence in research and education on rivers and their catchments." To achieve this, the centre mission is "To provide high quality research and training to underpin the sustainable management of rivers and their catchments."

The broad research objective is to improve our understanding of catchment and floodplain processes that ultimately influence the physical and chemical characteristics of rivers and the way they function as ecosystems. There will be a strong focus on aquatic biodiversity and conservation, but also consideration of social and economic issues that must be addressed in order to protect and restore rivers and floodplains. Five core research programs within CRL which have been developed around significant R&D and management issues, rather than specific disciplines. These programs have a unifying research theme of rivers in their landscape setting, which will encourage the development of strong interdisciplinary links. The programs and their leaders are as follows: Water Allocation and Environmental Flows (**Angela Arthington**), Land Degradation (**Grant McTainsh**), Biodiversity and Conservation (**Jane Hughes**), River and Riparian Rehabilitation (**Stuart Bunn**), Ecosystem Health Assessment (**Peter Pollard**). **Stuart Bunn** is the Director of CRL. Currently, CRL has 72 members, which includes research staff and R&HD students.

The inaugural CRL forum was held in early August at the Moreton Bay Research station on Nth Stradbroke Island. This provided an opportunity for everyone to learn more about the centre including the projects and people associated with each of the programs. The forum also discussed how the centre is to operate and the future opportunities for funding and collaboration.

Michele Burford recently joined CRL to work on algal ecology and ecosystem processes. One of the things she will be focussing on is toxic cyanobacterial ecology in drinking water supplies. Prior to joining CRL, **Michele** was at CSIRO Marine Research working on algal related things in a range of aquatic environments. The freshwater component of the Ecosystem Health Monitoring Program for south-east Queensland completed its second round of monitoring in Autumn. Griffith staff members are currently busily processing bug samples and entering data in preparation for the annual report card and technical report.

From

Stephen (Harry) Balcombe

NORTHERN TERRITORY RAMBLINGS

Darwin and the NTU Centre for Tropical Wildlife Management hosted over 500 guests at IALE (Internat. Assoc. Landscape Ecol.) at a superbly organized conference (that almost attained the dizzy friendliness of ASL events). Much of the European and North American research was about *recreating* functional landscapes. There was also a great deal of fancy visuals and descriptive data. Hydrological information was embedded in some of the talks, yet seemed to be technically superficial and failed to grapple with the range and scale of the many hydrological processes. An exception was **Sam Lake's** talk on rehabilitating stream habitat through modifying sediment depositional patterns and the idea of Scape Ecology (emphasis on both Land and Water). **Janet Stein** from CRES, ANU talked about her PhD work on a continental, landscape framework to support river and stream conservation. The framework will include a linked stream network and spatially nested, hierarchical catchment layer with an environmental classification and indices of anthropogenic disturbance for over 1 million individual stream links.

Quite a few of the guests got to visit the Daly Region and see the diverse aquatic ecosystems. Land clearing and development of irrigated agriculture in the Daly Basin is becoming a National issue, although both are well underway. Indigenous people are at the forefront of asking the NT Government to consult, make available the Plans and run the process require by the National Action Plan. The riverine landscape is central to the lives of several Indigenous groups (Jawoyn, Wagaman, Wardiman, Daly River, Malal Malak) who own and live in approximately 25% of the catchment.

Riparian zones are becoming a focus of research at NTU since the Tropical Savannas CRC Savanna Riparian Health project kicked off at the start of this year. The project is jointly led by **Michael Douglas** (NTU) and **George Lucaks** (JCU) and involves collaborators from UQ, Environment Australia and the NT, Qld and WA governments. **Ian Dixon** was recently appointed as research associate for the project. He will be developing and testing a rapid assessment index to measure the health of riparian vegetation within tropical savannas. He will be working in Kakadu National Park, the Victoria River District and the greater Darwin Region. He also hopes to identify factors that determine the successful recruitment of fruiting riparian trees in Kakadu National Park. This research will be useful for scientists and land managers who will be able to evaluate and monitor the health of riparian vegetation over time.

Sally Kent has returned to her PhD project (Supervisors **M. Douglas** and **S. Setterfield**) after maternity leave, to investigate the ecology of the riparian tree *Carallia brachiata*, which is thought to be an important fruiting species within the savanna riparian zones. Sally aims to describe the recruitment patterns of *C. brachiata*, and identify important factors influencing its successful recruitment into riparian forests.

Cont.

Nicole Cranston commenced her PhD (Supervisors **M. Douglas** and **S. Setterfield**, NTU and **A. Fisher**, NTDIPE) in March, and will be looking into the effectiveness of riparian fencing in protecting biodiversity. There is an increasing need for practical management options for riparian zones that will allow savanna landholders to meet their management objectives while still maintaining riparian health. The project will be looking at vegetation, ant and bird species composition at range of sites with varying histories and widths of riparian fencing in the Victoria River District (VRD). In addition to looking at biodiversity, pastoral managers in the VRD will be interviewed to determine their attitudes towards riparian management, and to assess whether fencing is a viable management strategy for them.

Research on stream ecology is still ticking away with Honours student **Laura Wirf** (Supervisors **M. Douglas** and **M. Meakan**, AIMS) getting great results in her project investigating spatial variation in top-down control in a tropical stream. Her project is using underwater electric fences to keep fish and shrimp out of stony habitats to evaluate their control of invertebrate and algal communities.

Clint McCullough (based at *eriss*, Jabiru) is completing his work looking at the ecological effects of elevated magnesium sulphate in the Wet season discharge from Ranger Uranium Mine (RUM), located within the boundaries of Kakadu National Park, on the aquatic biota of the adjacent Magela Creek. This project has involved risk analysis at scales from single-species toxicity testing, to mesocosm experiments in natural pools and artificial enclosures, through to ecosystem-level evaluations of entire billabongs. Both a site-specific trigger value for RUM's discharge and an Australasian Water Quality Guidelines trigger value will be forthcoming from this work. Clint will also soon be looking for a position following his thesis hand in ...

From

Naomi Rea
Charles Darwin Uni.

CENTRE FOR NATURAL RESOURCES IN THE DEPARTMENT OF INFRASTRUCTURE, PLANNING AND NATURAL RESOURCES, NSW

The Centre for Natural Resources has been in a little turmoil since we reported in December last year. Our Department has had 3 name changes during that time and we have had major budget cut backs since our State Government decided to join the former Department of Land and Water Conservation with the Department of Planning. We have kept the CNR name so far, but who knows what is going to happen in the future, stay tuned. However, most of us keep our heads down to avoid the flying shrapnel.

Monika Muschal is currently finalising the reporting and communication aspects of her CRCFE associate project "Assessing the risk to aquatic biota from elevated salinity in the Hunter River and tributaries, NSW, Australia". Monika is also part of the DIPNR team developing decision support tools/models to ensure ecological data and environmental principles form the basis of water rules and access licence transfer guidelines within NSW Water Sharing Plans. **Amanda Gordon** is also heavily involved in the decision support project. **Bruce Chessman** is still working on rapid biological assessment methods, concentrating on diatoms with Nina Bate, Peter Gell & Peter Newall and macrophytes with **Meredith Royal**. Meredith is busily identifying plant samples before the next round of field work begins in late September for Ecological Assessment Tools for Perfomance Monitoring project.

Ivor Growns has almost finished his time on the Independent Expert Panel for the Hawkesbury-Nepean River Management Forum. After working on this panel for almost full time for 2 years Ivor is trying to figure out what he was actually employed for. **Michael Healey** is working on developing condition assessment techniques for different wetland types in the Richmond Clarence and Port Stephens. Michael is also working on how to determine ecological values of rivers using GIS and existing data. **Nirvana Searle** is trying to figure out how to improve on existing macroinvertebrates methods to assess ecosystem health in the Darling River. After **Doug Westhorpe's** brilliant presentation at the recent NISORS conference in Albury he is writing the material up to be published on paper. You will have seen his abstract in out last contribution to the newsletter. **Bronwen Jones** is out in the field somewhere near Bourke on the Darling River with **Peter Serov** trying to catch fish to stick radio-trackers in them. They are trying to catch Murray Cod but it appears as though the river is just full of carp. When Peter returns he'll return to build up our literature on ground water dependent ecosystems and figure out how to assess their values. **Ken Harris** is coordinating projects to feed into the Department's Integrated Assessment Guidelines project. **Margaret Brock** is currently out of the office and has run away from the Armidale cold to Queensland. She'll be returning to her wetlands and salinity project with the CRCFE and flitting to Sydney on threatened species committee meetings.

From

Ivor Growns

WETLAND RESEARCH GROUP, FACULTY OF ENVIRONMENTAL SCIENCE SCHOOL OF ENVIRONMENTAL ENGINEERING, GRIFFITH UNIVERSITY, BRISBANE

Finally we have got our act together in time to submit an article on the activities of the Wetland Research Group within the School of Environmental Engineering. The past 6 months has seen us welcome some new members to our team and farewell others into their new ventures. We have had rain in Brisbane over the autumn and winter months - which has been welcome after a very dry summer. With most of our researchers studying the effects of stormwater it helps to have some water flowing into the systems!! At least we now know more about inter-event processes.

Margaret Greenway continues to be the driving force within the Wetland Research Group with her strong interest in wetland nutrient dynamics and constructed wetland systems. She is the Australian representative on the IWA Specialist Group on Macrophytes for Water Pollution Control - if you would like more information on this group or would like to receive their newsletter contact Margaret: m.greenway@griffith.edu.au. Margaret also coordinates the Brisbane Node of Program 4 - Urban Stormwater Quality, CRC Catchment Hydrology. Not surprisingly, most of our research over the past 4 years has focussed on stormwater wetlands. Margaret has continued with her monthly litter collections from the Carbrook Melaleuca wetland - now into its 12th year - she has said that July was the last but we will see!! The litter samples certainly keep our dedicated sorter **Gayle Johnson** busy separating the leaves, capsules, bracts, bark etc. In addition to litter, we have also been monitoring soil nutrients and groundwater. **Julie Anorov** who received a PhD scholarship through the Coastal CRC, is writing up her thesis on the geomorphology of the coastal wetland continuum at Carbrook.

We said goodbye to **Thomas Kasper** (Boku University, Vienna) after his 6 month dissertation spent intensively monitoring Total Suspended Solids and nutrients at Bridgewater Creek wetland. Thomas collected water almost every day for 6 months - rain, hail (not quite) or shine. We now have an enormous database and **Graham Jenkins** is the lucky man who will be working his way through the data. Graham has also taken over water collection duties, so that we will have 12 months of data. He will be using this data to develop appropriate background concentrations in the MUSIC model in order to gain a better understanding of the processes involved in the re-suspension and settling of suspended solids in the wetland. Our Guilan visitor, **Lishan Zhang**, is close to finishing his Masters' project on sedimentation, which has involved many muddy days at Bridgewater Creek wetland collecting sediment for nutrient and particle size analysis.

Mark Bayley joined us in March from Southern Cross University, he is doing his PhD on carbon, nitrogen and phosphorus dynamics in constructed stormwater wetlands and ponds, in particular focussing on the role of periphyton and plankton.

Cont.

Courtney Henderson is halfway through his PhD on the effectiveness of bioretention systems for stormwater treatment. He is currently conducting lysimeter dosing experiments using 'wheelie bins', to test the nutrient removal capacity of different substrates and the effect of vegetation.

Eloise Larsen has completed her bioreactor experiments on the role of biofilms in nutrient removal. This work will be presented at the IWA conference on biofilms in Cape Town in September. **Kate Browning** is about to submit her Masters thesis on the "Suitability of Schoenoplectus, Baumea, Carex and Phylidrum for nutrient removal in subsurface flow wetlands". Kate is now working with City Design, Brisbane City Council.

Mavourneen Lutton has completed her honours project on water quality and vegetation in Bridgewater Creek wetland, and has just joined Stuart Bunns' Centre for Riverine Landscapes as a research assistant. After a gruelling summer vacationship out in the hot sun looking at the relationships between light, chlorophyll oxygen and nutrients, with some phytoplankton identification thrown in, **Anu Datta** has just completed a winter comparison in Bridgewater Creek wetland. **Carolyn Polson** has completed the winter macroinvertebrate sampling for both stormwater and sewerage treatment wetlands and has just begun the long process of sorting and identifying bugs - just as spring/summer sampling is on the horizon. Carolyn and Anu have also spent many hours processing water samples for nutrient and suspended solids and are, no doubt, looking forward to many more.

Regards

Wetland Research Group at Griffith Uni.

AQUATIC ECOSYSTEM HEALTH UNIT, NATURAL RESOURCE SCIENCES DEPARTMENT OF NATURAL RESOURCES AND MINES (NR&M)

There have been a number of staff changes at Rocklea in the past few months. **Marc Seifert** from UQ has set-up camp on the grounds while undertaking his PhD with **Glenn McGregor** (AEH) and **Glen Shaw** (National Research Centre for Environmental Toxicology) as his supervisors. **Marc's** PhD research involves determining what aquatic biota are affected by blue-green algae toxins and at what concentrations do the affects occur. **Marc** was previously involved with the EHMP project at Griffith University and has worked as an environmental consultant in Cairns and a biologist with NR&M. **Chris Marshall** has momentarily escaped the clutches of AEH and taken a temporary appointment on secondment as a policy officer (passing to the dark side!!) with the Water Planning section of NR&M for several months. **Chris** will be looking at developing the monitoring requirements for Resource Operations Plans of a number of catchments in Qld. **Andrew McDougall** has joined the regional staff of NR&M Bundaberg, as the first "Biologist in the Bush" for Qld. **Andrew** will be working closely with the AEH unit on relevant projects as well as sampling for a number of ROP's and regional projects. **Andrew** previously worked for DPI.

Rocklea was recently visited by **Tom D'heygere**, a PhD student from the Laboratory of Environmental Toxicology and Aquatic Ecology at Ghent University, Belgium for several weeks. **Tom's** PhD research includes monitoring and modelling of aquatic ecosystems and river management. He is also involved in projects on the status and recovery of pike populations in Flanders and the development of a macroinvertebrate index for Flemish rivers under the European Water Framework Directive. The visit was an ideas exchange where **Tom** learnt about research and methods used by AEH and then presented a seminar for interested NR&M staff on modelling techniques used for river management in Flanders (Belgium). **Tom's** visit was initiated after a visit to Ghent University by **Jon** and **Alisha** on a recent holiday to Belgium.

Michelle Winning, **Alisha Steward**, **Annette Ritchie** and **Diane Conrick** are at present undertaking fieldwork for the Fitzroy Basin ROP research project. **Peter Hancock** has completed sampling for the groundwater fauna project in the Pioneer Catchment and is sorting through all the collected samples in the lab.

Most of the work presently being done at Rocklea is writing up reports for various projects and processing samples in the lab. **Chris Thomson** is putting the final touches to an AUSRIVAS-style water quality modelling project report. **Bronwyn Harch** and **Chris Marshall** have recently completed the analyses of the Fitzroy ROP project data and **Pete Negus** is writing up the results.

The unit is getting involved heavily in National Science Week undertakings. **Kim Cheshire** is organising AEH's involvement in a number of events. **Chris M., Andrea Prior, Kim, Pete H., Jon, Jaye Lobegeiger, Michelle, Alisha, Pete N., Diane** and **Satish** are staffing a display stall for several days at the Brainwaves festival, a display stall at NRSc open day and presentations are being made by **Jon** and **Pete H.** at the Brainwaves festival. **Satish** is also attending Science meets Parliament day, where he will discuss science issues with interested MP's.

Jaye, Michelle and **Alisha** presented preliminary results from the Condamine-Balonne Integrated Monitoring Project at the NISORS conference in Albury. Sounds like a great time was had with trips to local bakeries and wineries to top it off. The three are now writing a joint paper for the special edition of River Research and Applications resulting from the conference.

Satish has recently attended the Mackay-Whitsunday Healthy Waterways Forum at Airlie Beach. The itinerary included sampling of water quality on several Whitsunday Islands with a lunch stop on Whitehaven Beach where supposedly they went to observe the water column at a number of depths and examine the sediment deposits.

Jaye is busily keeping up with the blue green algae sample id's from impoundments throughout the state (while **Glenn Mc.** holidays in all the same locations). **Jaye** is also teaching **Marc** about the finer points of toxic blue-green algae cultures and how not to kill shrimp that he will hopefully use to great effect for his PhD.

Cheers

Pete Negus

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND ECOLOGY LA TROBE UNIVERSITY WODONGA

Phil Suter is now Head of Department with **Roger Croome** taking a well-earned break from the position. We are all anticipating the move of MDFRC from Thurgoona to a new building here on-site, and look forward to greater collaboration on many new and existing projects.

There are many projects underway at the moment. **Jess Butler** and **Ruth Cornforth** have recently commenced honours working with **Roger Croome**, and **Gavin Rees** and **Darren Baldwin** from MDFRC. Jess is investigating phytoneuston composition and significance in floodplain billabongs, while Ruth is comparing bacteria in the surface microlayer with those in the water column. **Rachel Clancy** is part way through her honours looking at rotifer ecology on in-channel benches in the Lower Ovens River, supervised by **Terry Hillman** and **Daryl Neilsen** from MDFRC. **Simon Lukies** has recently commenced an honours project with **Peter Pridmore** and **Paul Humphries** from MDFRC investigating diet and foraging behaviour of overlapping and non-overlapping populations of Mosquito fish and Murray River rainbowfish from the Broken River. **Nathan Ning** has also recently commenced honours with **Phil Suter** and is looking at the impacts of fire on the aquatic organisms of alpine bogs.

Tim Curmi is finishing off his research on the health of the Lachlan River and hopes to submit early next year. **Cassandra Bryce** is about to commence the genetic component of her PhD work on the systematics of the family Eustheniidae (Plecoptera) in Australia. **Aaron Troy** has commenced a PhD on the quantification of the ecological benefits associated with wetland rehabilitation along the Murray River floodplain, after recently completing his honours on the effects of grazing on the physico-chemistry and biota of dams associated with travelling stock reserves in southern NSW.

Of the academics, **Terry Hillman** is busy working on various MBDC consulting panels and is hardly ever seen in the office. **Phil Suter** received significant funding for a project investigating habitat profiles for selected Australian aquatic macroinvertebrates and is using material and data previously collected from the monitoring river health program. **Tim Curmi** is working on this project separating specific families and sending them off to experts for identification. **Susan Lawler** was part of a group of crayfish people who received a large ARC grant. Susan is investigating the genetics of the various crays and their associated Temnocephalans.

From

Tim Curmi

UNIVERSITY OF NEW ENGLAND, ECOSYSTEM MANAGEMENT

The weather warms enough for poikilothermic Armidalean limnos to think of field work again. **Wendy Miller** has her final sampling trip coming up, assessing leafpacks and their fauna in urban, rural and reference streams. She has been assessing enzymic activity on her leaf packs, helped by **Darren Ryder**, and will have some interesting results to present in December. Also looking at leaves is **Judy Davies** who is trying to determine whether camphor laurel is detectably toxic to aquatic invertebrates in streams along the North Coast. A pilot study on two creeks with different densities of camphor laurel in the riparian vegetation did not find a significant difference in the abundance and taxa of the macroinvertebrates in these creeks. However, there was a negative correlation between the percentage of camphor laurel litter in the creeks and the shredding activity evident on the litter. Judy now plans to expand the work to 6 streams and see whether these patterns persist, and she is keen to hear from anyone else who has worked on camphor laurel litter.

Peter Rose, **Paul Lisle** and **Andrew Boulton** are heading out to sample water quality, macroinvertebrates and water plants at 25 sites in the Nambucca and Bellinger Rivers in areas of different land-use on the 'post-drought' sampling run. However, it has been pretty dry lately so maybe the post-drought call is premature. **Kelly Howitt** has handed in her Hons thesis on effects of estuarine saltwater intrusion up the Hastings River, and has been funded by the Hastings Council to continue sampling until the end of the year to catch the spring-summer responses. **John Duggin** is tracking responses of riparian vegetation while **Keith Bishop** continues his longer-term studies of aquatic plants and fish. **Simon ('Rex') Carter** collected heaps of bugs and fish in his artificial *Vallisneria* beds and is now shackled to the microscope working out what they all are. **Marcus Finn** is on the home stretch of his bug-counting but finds time to head out on everyone's fieldtrips to escape the 'scope'.

Sarah Mika and a cast of thousands, including **Paul Lisle**, **Trevor Stace**, **Peter Hancock**, **Gareth Kyle**, **Dan Keating**, **Ben Wolfenden**, and **Andrew Boulton** were involved in a few days freeze-coring and pump-sampling the unsuspecting subsurface denizens of a gravel bar and riffle on the Williams River where large woody debris is to be installed. This project, overseen by **Andrew Brooks**, is a pilot study to determine how introduction of LWD might affect subsurface processes, flowpaths, fauna, and DOC dynamics. When not astounding us with tales of freezecoring or writing up his PhD thesis, Peter is carrying out stygofauna sampling trips to sites around Mackay for the Department of Natural Resources and Mines. **Imogen Edmunds** attended a phytoremediation workshop in Brisbane and was impressed by the potential of the field and its scope for research. Although the workshop was mainly from an engineering viewpoint, Imogen made some good contacts and plans to extend her Masters project to explore associations between heavy metals and macroinvertebrates in the upper Macleay River.

From

Andrew Boulton

THE MURRAY-DARLING FRESHWATER RESEARCH CENTRE

The Northern Laboratory of MDFRC in Goondiwindi was officially opened by Senator the Hon. Ian Macdonald (Minister for Fisheries, Forestry and Conservation) on 27 August.

Congratulations are extended to **Trish Bowen** who was awarded the Sydney Catchment Authority Best Student presentation at the *Ninth International Conference on River Research and Applications* held in Albury from 6 to 11 July. Trish is a University of Canberra PhD student based at MDFRCin Albury, studying "Flow effects on cycling of carbon from lowland river macrophytes", supported by a Land and Water Australia postgraduate scholarship.

For the last 18 months, **Katharine Crossle**, has been working as a Technical Officer on a project investigating the effect of increasing salinity on the biota in freshwater wetlands. However, she's now headed overseas with the aim of combining study with some travelling. Katharine will be studying for a Masters in Science (Ecology and Environment) at Lancaster University, funded by a scholarship from the Commonwealth Scholarship and Fellowship Plan. The course will run for 12 months and incorporates course work and also a research project. She chose this course because it offers the chance to study any of a wide range of subjects from ecophysiology through to community ecology.

In June, after an overly long gestation period, **Paul Humphries** and **Darren Baldwin** celebrated the birth of the 'Drought Issue' of *Freshwater Biology*, full details on the Blackwell Homepage: http://www.blackwellsynergy.com/servlet/useragent?func=synergy&synergyAction=showTOC&journalCode=fwb&volume=48&issue=7&year=2003&part=null. Volume 48, Issue 7 is a series of papers that emanated from a Symposium on The Role of Drought in the Ecology of Aquatic Ecosystems, held in Albury from 12 – 14 February 2001.

Darren Baldwin and **Alison Mitchell** attended *Organic P 2003* at Monte Verità - Ascona, Switzerland from 13 to 18 July, and **Trish Bowen** attended the 2nd International Conference on *Enzymes in the Environment: Activity, Ecology & Applications* in Prague, The Czech Republic from 14 to 17 July

Julia Howitt, based at MDFRC Albury, has submitted her PhD thesis on "Photochemistry of Aquatic Substances" – supervisors **Darren Baldwin** and **Gavin Rees**, and she is currently working on the blackwater project with Darren and Gavin.

Rachel Clancy from La Trobe University has commenced her Honours at MDFRC on "Abundance of Invertebrates in River Benches of the Ovens" – supervisors **Daryl Nielsen** and **Terry Hillman**.

From

Rhonda Sinclair

INLAND FISHERIES SERVICE TASMANIA

Completion of Technical Studies for Lakes Crescent and Sorell Rehabilitation Project!!

During March 2003 the technical studies of the Lakes Crescent and Sorell Rehabilitation Project were finalised. This project which the Inland Fisheries Service (IFS) in Hobart had been running since Autumn 2000, is nearing the end with only the water management planning process still continuing.

With the completion of the technical side of the project, the project team has spread their wings. **Adam Uytendaal** has been working towards the completion of his PhD at the University of Tasmania and has moved into the Biological Consultancy unit of IFS. **Danielle Heffer** has been travelling around the world for a few months holiday and has recently returned and landed a position on the Reserving Freshwater Ecosystems Project within DPIWE in Hobart. **Scott Hardie** has started a PhD at the University of Tasmania investigating the conservation biology issues of the golden galaxias and is doing some part-time fisheries policy work at IFS. **Jenny Deakin** is continuing the water management process of the Crescent-Sorell Project from the DPIWE Water Resources division while also getting into the groundwater issues of Tasmania.

For those that were not aware of this project, some background info is provided.

BACKGROUND TO PROJECT

A decline in the trout fishery, water quality and ecological values of Lakes Sorell and Crescent occurred in recent years. In light of these problems, the IFS secured State and Commonwealth (Natural Heritage Trust) funding to implement on-ground works and formulate management options to address the recent environmental decline. The key problem associated with the lakes is low water levels due primarily to drought conditions and competition for water by various users. A multi-disciplinary project was adopted to address the situation - the *Lakes Sorell and Crescent Rehabilitation Project*. This project was comprised of ten sub-projects targeting key areas of physical and biological importance to the functioning and management of Lakes Crescent and Sorell. Four key technical studies which investigated the current status of fauna and flora of lakes Crescent and Sorell and the environmental requirements of the lake ecosystems were also incorporated into the ten sub-projects. The technical studies and sub-projects were:

A summary of the objectives, findings and recommendations of the key technical studies and copies of all additional sub-project reports produced by the *Lakes Sorell and Crescent Rehabilitation Project* are available on the IFS website: http://www.ifs.tas.gov.au/sorell_rehab.html .

From

Scott Hardie

POSTCARD FROM TIM DOEG

Wadda ya mean ... you're going to implement them!?

Life as a consultant is full of compromises. Most of what we do involves making recommendations to those wonderful people who pay us. A lot of time and effort can go into developing management recommendations or, as in many of my recent jobs, environmental flow recommendations.

However, once the recommendations are made, the real world steps in. "Are you mad? If we give you those flows, they would mean that the irrigators, regional urban centres, lovers of English Country Gardens, and/or people who like 30 minute showers would have to give up some of their precious 'rights' to the water." Terms like "food bowl of the country", "critical regional economic industry", "loss of jobs" and "intolerable loss of rural and regional income" are all bandied about.

[Aside: I guess this is not really surprising. Particularly in environmental flow work, most priority environmental flow studies are conducted on rivers that are thought to be flow-stressed. The study is done precisely because it is though that water allocations to irrigators, regional urban centres etc. are over committed to account for environmental values. In these studies, you should expect any additional recommended flows for the environment to have some impact.]

Invariably, the recommendations get compromised to take into account the effect on other social and economic values. And so, the environmental flow recommendations are watered down to a compromise position. Some of the recommended flows are dropped entirely, or reduced in volume, or reduced in frequency. Eventually, a "balance" between the recommendations and social/economic values is developed.

[Aside: Balance?]

I guess one of the beauties of such continual compromises is that it lets us consultants off the hook. "Hey, don't blame us if implementing the revised flows actually don't work. We told you what the environment needed, so don't be surprised if not delivering all the recommendations doesn't achieve the objectives". We get paid, move on to the next job and sleep well at night.

[Aside: So why the hell does it cost us so much for Professional Indemnity Insurance? Premiums are getting higher and higher, and outrageously so - I've heard of smaller consultants who are now being asked for up to 20% of their annual income just for insurance. And this is just because we make recommendations, and so are liable for those judgements. But if none of our recommendations ever get implemented in full, how can we possibly be any risk! Some-one in the Insurance Industry seems to be assessing our risk wrongly.]

But recently, something happened to me that was really quite strange and disturbing. I was a member of a Technical Panel that developed environmental flow recommendations for a river thought to be particularly flow-stressed. We came up with a series of flow recommendations for this river. Summer low flows, summer freshes, winter low flows, winter freshes, winter high flows, rates of rise and fall. The whole package. In all, we were satisfied that these flow recommendations would adequately protect and rehabilitate the environment downstream of the particular off-take point.

But it turned out that quite a few of these flows were actually already being delivered (not so stressed after all), but the important winter freshes were almost entirely missing from the system. We argued that these were vital to the overall health of the river and should be re-introduced into the flow regime. Our report was written with the recommended flow regimes.

The recommendations went off to the resource modellers, and we sat back waiting for the bad news. "Unfortunately, we can't afford to supply these freshes as the irrigators, regional urban centres, industry, lovers of English Country Gardens, 30 minute shower people would suffer too badly. .... food bowl of the country ... critical regional economic industry ... loss of jobs ... intolerable loss of rural and regional income. Sorry, but we need to come up with some compromise flows. Don't you know there's a drought going on?"

Imagine the shock when the resource managers came back and said "Fine, we can supply those freshes without any significant impact on resource security! It means a bit of a re-design of the outlet structure, but no worries. A couple of hundred thousand dollars should cover it" Well! Thinking back over a long career of trying to get things done, this has never happened before! After making finely crafted, well argued recommendations for a variety of actions - forest buffer strips, endangered species management - I've never been faced with the dilemma that they would ever be implemented in full. Or in many cases, never implemented at all (leading to the "Oh, well, I tried" glory-in-defeat attitude that pervades many environmental workers).

But this was something completely new. Hang on a minute. If they implement the recommendations in full, then they might actually expect that all the glowing benefits that we predicted would follow from the recommendations might .... gulp .... actually happen. No, surely not. I mean, every-one knows that environmental prediction is a pretty fuzzy thing. Best guesses and all that. What if the flows don't actually have the predicted benefits. A couple of hundred thousand dollars is a lot of money. If the benefits don't actually arise, we might look like incompetent idiots. No-one will trust us to recommend things in the future. Even worse, no-one will hire us again. We might even be sued!

I've just send my exorbitant cheque off to the Professional Indemnity people. Now I can rest easy at night.

[Aside: I should really never have worried. After all, what is the chance of getting what you recommend implemented AND some-one actually monitoring the outcomes.....?]

The one, the only, Tim Doeg

A BIT OF FUN

Dear Onmil

I want to be a limnologist but I'm afraid of water. Should I choose another career?

Signed

N. Wet

Dear N.

Certainly not.....where's your backbone? Unless you're an invertebrate, in which case I apologise. Being an invertebrate is no excuse for not becoming a limnologist, however. It hasn't stopped anyone before.....

It's easy - study wetlands and rivers when they're dry! Lots of aquatic invertebrates, for instance, have resistant stages, or crawl under rocks, or bury themselves in the substrate.....rather like politicians, but quieter.

Wetlands and some creeks dry up, some spend more time dry than wet. And just think, no standing round in cold, wet conditions - pick brilliant, sunny weather for your field trips! Be the envy of all your friends! Alternatively, study the after effects of normal longwall mining practices under rivers.....getting wet won't be a problem, believe me.

Sincerely

Onmil

Ask Onmil all the tricky limnological etiquette questions you really want answered!!

INFORMATION FROM AND FOR MEMBERS

THE ROLE OF ASL

Dear colleagues

Here is a summary of a discussion that Andrew Boulton and I (Gillian Dunkerley) had about the role of the ASL. This arose from looking at a specific overseas aquatic issue and how, or if, the ASL might respond. The answers are my views. Andrew suggested I summarise the discussion for the ASL list and for the Newsletter, because it is something we'd like to discuss at the next Congress. So get your thoughts together!

What is the role of the ASL and how can we best promote this role?

Does ASL need, or even want, to know about aquatic concerns on a global scale or within Australia? Does the ASL want to be involved in these issues?

Is it necessary for the ASL to provide input at all on any issue? Is a contribution from the ASL value-adding or is it just duplicating other input? My answer to this is I think input from the ASL is value-adding and worthwhile, particularly as it is, to some extent, independent of the affliations of individuals.

The level of involvement in any issue is not black and white. I see an involvement continuum, starting at uninvolved, then providing information, then interpreting that information (as in 'if you do this, the likeliest outcomes are such and such'), then providing recommendations ('I think this option is the best, for these reasons'), then lobbying to get those recommendations adopted.

To deal with the last option first, the ASL is not, and should not be, a lobby group - this is the role of conservation organisations. Besides, we couldn't possibly service lobbying (in terms of time and resources needed) and would lose credibility, in terms of objectivity of a science-based response.

I think that avoiding all issues (being uninvolved in all issues) is going too far the other way - if someone in the ASL has specific knowledge and/or interest in a certain area, then there is a responsibility to provide input. Decisions will be made anyway, and they will be poorer decisions if they lack good scientific input. We can hardly complain about degraded waterways and poor management decisions if we are not prepared to provide information we have.

That leaves one of the other options I mentioned on the involvement continuum (provide information, interpret that information, make recommendations based on that information). I think it would be difficult for the ASL to make a general statement about which is the best of these options - the quality of the input we can give is very dependent on the expertise and knowledge of a particular person about a particular area. In other words, I suppose the ASL can encourage involvement/input as and when necessary, but can't and shouldn't dictate that involvement - obviously it is issue-dependent.

Which leaves the question, how do we find out about issues? It seems to me that this is very ad hoc at the moment.

For Australian issues - how do we get to hear about them in time to respond to them? So far it seems to have been through the ASL list or via members themselves. This partly depends on people being aware we exist and that we have members who may have specific knowledge about a particular area. But how do people find out that we exist and have such members? I think that there is a need to raise the profile of the ASL a little. It may be worthwhile discussing ways to do this that do not take a lot of time or money.

For overseas issues - unless someone has particular expertise in a particular area, are we prepared to say anything, given it would have to be based on general ecological principles or examples from elsewhere? Are ASL members interested in overseas aquatic issues? Are overseas people with similar interests interested in Australian issues? This is something we could perhaps discuss at the next Congress, given it is a joint one with New Zealand.

Do we need to have any general principles about deciding which issues we are to be involved in? This is also something that could be discussed.

Could all you tolerant readers who have lasted this long think about:

1. The ASL's possible national and international profile, and

2. Possible 'early warning' systems for identifying impending issues, here and overseas, that may be of interest to ASL?

Please send ideas to the list or bring them along to the Congress.

Many thanks.

Regards

Gillian Dunkerley
Waters and Catchments Policy
NSW Environment Protection Authority
Phone (02) 9995-6043, Fax (02) 9995-6602, Email dunkerleyg@epa.nsw.gov.au

AUSTRALIA WATER PARTNERSHIP WEB SITE OPERATIONAL - WWW.GWPAUSTRALIA.ORG

As you may recall, a number of individuals, including the ASL Vice-President, Dr Sabine Schreiber, have been working together for some time now, to establish an Australian affiliate of the Global Water Partnership (GWP).

The Global Water Partnership, established by the World Bank, the United Nations Development Program, and the Swedish International Development Cooperation Agency in 1996, aims to promote integrated water resources management (IWRM) through the development of a worldwide network of partnerships, pulling together financial, technical, policy and human resources to address the critical issues of sustainable water management. IWRM is an approach to land and water management that seeks to balance human, industrial, agricultural and environmental needs. To do this successfully, everyone involved in water use - government departments, academics, community groups, agricultural and business interests, NGOs and all other interest groups - must join forces to share information, understand data and solve problems.

The AWP provides a neutral forum embracing all 'water' stakeholders to advance IWRM in Australia and the Asia-Pacific region. The AWP's new web site (www.gwpaustralia.org) is the partnership's primary tool for promoting IWRM.

The web site provides a selection of water case studies on IWRM practices based on the real-life experiences of Australian individuals and organisations; links to the GWP ToolBox (a web-based framework of policy guidelines, templates and case studies, designed to provide guidance for the implementation of good water governance); important news and events updates; and further information about the Australian and Global Water Partnerships.

The AWP is also seeking members to join and sustain this worthwhile organisation. While the AWP has been provided with start-up funds by the Commonwealth Government, it aims to be self-sustaining by 2004. It is therefore hoped that a wide range of organisations and individuals will become members of AWP. Membership of AWP will provide your organisation with an access point to the growing world-wide GWP network and will contribute to its objectives. Organisational and NGO members will also be accorded recognition on the AWP web site. The annual subscription is nominal ($100 for organisations, $25 for NGOs, and $15 for individuals).

For further information contact Rochelle Lawson, Project Officer, AWP.
Phone: 0425 428 220. Email: awa@awa.asn.au

AFA – AUSTRALIAN FRESHWATER ALGAE

*** New website, including interactive key and pictorial key to 235 genera of freshwater algae in Australia ***

If you are interested in freshwater algae, or think you could become so, take a look at our new webpages...

http://www.rbgsyd.nsw.gov.au/information_about_plants/botanical_info/australian_freshwater_algae2, or if that URL is too daunting, start with www.rbgsyd.nsw.gov.au, and work your way down through: Information about Plants > Botanical Information > Australian Freshwater Algae.

The interactive key to 235 genera of freshwater algae in Australia (ALGKEY) was funded by the NSW Community Access for Natural Resources Information program. This INTKEY (DELTA) product is our first attempt at keying out most of the genera we think people will find in Australia. We welcome feedback and of course corrections (we know already there are some mistakes in our scoring).

The pictorial key (ALGPIC) should be fun to browse and for many users may be more appealing than the interactive key.

The AFA pages link to our existing Census of Freshwater Algae in Australia. Unfortunately we have been unable to update this for a number of years. However, I am still accumulating literature and hope to bring it up-to-date as soon as I can. If you publish a new record of freshwater algae from Australia, do let me know.

While I will take ongoing responsibility for the key (and for any errors), Nick Yee was the principle editor and creator of ALGKEY, Penny Farrant formatted most of the webpages, and Matt Whittington designed the banner and some of the layout.

Tim Entwisle (Tim.entwisle@rbgsyd.nsw.gov.au)

AUSTRALIAN SALINITY ACTION NETWORK

The Australian Salinity Action Network (ASAN) has been contacted by the House of Representatives to inform members of the following new inquiry being conducted by the House of Reps - Standing Committee on Science and Innovation on "Managing, coordinating and implementing the best science to combat salinity: can it be done better?"

This is a chance to have your voice heard by the Commonwealth Government on the above issues. You may like to make your own submission to the inquiry or you may want ASAN to submit your say through ASAN as one voice, or both. This may be a useful option if you do not have the time to prepare your own detailed submission. Please let us know if you would like to contribute to the ASAN submission.

Whilst the media release and the website for the terms of reference is found on the ASAN website (www.asan.net.au), the Committee's web site is: http://www.aph.gov.au/house/committee/scin/salinity/index.htm

Interested individuals and organisations are invited to make written submissions to the inquiry by Friday, 17 October 2003. To contribute to an ASAN submission please prepare by the 8th October.

For further information, please contact the Committee Secretariat at scin.reps@aph.gov.au or call (02) 6277 4150.

Best regards

John Bradd, National Coordinator, ASAN
ph: (02) 9717 3937

2003 VICTORIAN FLOOD MANAGEMENT CONFERENCE ~ HORSHAM 8 TO 10 OCTOBER 2003

Healthy floodplains, wealthy future is the theme of the 2003 Victorian Flood Management Conference. The Keynote Speaker is high-profile television personality Rob Gell, Victoria's National Nine News weather presenter. Also a coastal geomorphologist, environmental consultant and advocate of ecologically-sustainable business, Rob Gell will bring an amazing mix of experience and insight to the conference.

The conference is aimed at people from the private and public sectors involved in floodplain management and flood prevention, response and recovery. Conference organisers would like to encourage those interested to be a part of this exciting event, which will provide valuable networking, learning and information sharing opportunities. Flooding is a significant community issue throughout Australia. Victoria alone has an average annual flood damage bill of more than $120 million.

The 2003 conference builds on the success of the past two conferences and will focus on the growing significance of our floodplains. It will also focus on the interdependence of the health of our rivers and floodplains. The conference will cover a broad range of interest areas including planning for sound floodplain management, balancing rural uses on floodplains, technology advances, minimizing risk and flooding in the urban environment.

To register for this event, download the registration form and brochure from the conference website (www.vicfloodconference.com.au), or phone Horsham Rural City Council on 03 5382 9777 for a copy of the brochure.

Many thanks,
Elyse Riethmuller
Waterways Manager, Wimmera Catchment Management Authority
riethmullere@wca.vic.gov.au

MOLLUSCS COURSE

For the second time, an intensive course on molluscs will be held at the University of Wollongong (south of Sydney) from 8 to 21 February 2004.

The course is taught mainly by staff from the Australian Museum (Winston Ponder, Bill Rudman and Peter Middelfart) in conjunction with Assoc. Prof. Andy Davis from the University of Wollongong. It includes lectures, labs and field studies (the latter in Jervis Bay). Details can be found at http://www.uow.edu.au/science/biol/molluscs/

Many thanks
Winston Ponder

AGREEMENT ON THE MANAGEMENT OF SNOWY'S FUTURE

The Australian Government, NSW and Victorian Governments reached an historic milestone in assuring the future of the Snowy River with the announcement on 25 August, of agreement on the composition of the Snowy Joint Government Enterprise (JGE).

Federal Resources Minister Ian Macfarlane, NSW Agriculture Minister Ian Macdonald and Victorian Environment and Water Minister John Thwaites have agreed to the broad parameters of the JGE which will oversee a program of water savings to provide additional flow for the Snowy and Murray Rivers.

Consultations with South Australia, which will have observer status on the JGE with the option to join at a later date, will also begin shortly. "In simple terms this agreement paves the way for providing the promised environmental flows to the Murray and Snowy Rivers. It's a vital step toward restoring the health of these very important Australian rivers," Mr Macfarlane said.

A long-term staged release process has been decided to ultimately deliver the targeted 212 gigalitres in increased environmental flow for the Snowy and up to 70 gigalitres of dedicated environmental flows into the Murray each year. It's proposed to locate the JGE near the Murray River at Albury and that the Enterprise be made up of an independent board of three directors. "These rivers are true Australian icons, and the Government - both State and Australian - is committed to seeing that they continue to thrive for the benefit and enjoyment of future generations," Mr Macdonald said.

"The extra environmental flows will provide benefits to both the Snowy and Murray Rivers, with the Snowy JGE to oversee expenditure of $375 million over the next 10 years for water savings projects," said Mr Thwaites.

Victoria and New South Wales will each contribute $150 million, and the Australian Government will contribute $75 million over 10 years. The Australian Government, New South Wales and Victorian Governments intend to establish the JGE by mid-October 2003.

NEW PLANNING AND NATURAL RESOURCES DEPARTMENT FOR NSW

The Department of Urban and Transport Planning and the Department of Sustainable Natural Resources in New South Wales are to be merged to form one department, the Department of Infrastructure, Planning and Natural Resources.

The restructure was announced by Natural Resources Minister, Craig Knowles, in a statement to Parliament in late May.

Mr Knowles said the merged department would also enable the better provision of services by reinforcing the concept of one-stop shops for information, applications and approvals.

Administrative costs would also be reduced, and the new director- general, Jennifer Westacott, had already commenced the process by amalgamating corporate services, finance, human resources, fleet management, accommodation, media and communications and executive support into one unit.

THIRD EDITION OF AUSTRALIAN ENVIRONMENT DIRECTORY RELEASED

Hallmark Editions, publisher of EnviroInfo, has released the Third Edition of the Australian Environment Directory. The Directory is a 440 page guide to the environment sector at Federal and State levels, allowing readers to quickly identify which departments and agencies are responsible for programs and relevant legislation.

The programs include air quality, catchment management, greenhouse, renewable energy, salinity, land, coastal and marine management. More than 700 organisations, research bodies, and educational institutions are listed in this comprehensive directory.

If you would like more details about the Directory please send an email to ruth@halledit.com.au or order through our website at http://www.halledit.com.au Orders can also be made by contacting (03) 9530 8900.

MURRAY COD

The iconic Murray Cod has been listed as vulnerable under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). As a consequence, any activity likely to have a significant impact on the Murray Cod will have to receive approval from the federal environment Minister. For more information about the listing, including an information sheet about the Cod, visit http://www.ea.gov.au/epbc/news/index.html

PAROO

* The Queensland and New South Wales state governments have signed an agreement to protect the Paroo - the last major free flowing river in the Murray-Darling Basin. For more information, including a copy of the Paroo River Agreement, visit http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Paroo+River+Agreement

EXPERT REPORT CALLS FOR URGENT ACTION ON DYING RED GUMS

An expert report urges immediate action to halt serious environmental threats to the health and viability of River Red Gum trees along the River Murray downstream of Mildura.

The report was commissioned and published by the Murray-Darling Basin Commission (MDBC) and was released on June 5 - World Environment Day.

Entitled Preliminary Investigations into Observed River Red Gum Decline along the River Murray below Euston the document confirms serious threats to the health of the trees and said that "unless adequate flooding is reintroduced it is likely that a significant loss of vegetation communities on the lower River Murray floodplain will occur."

The symptoms were consistent with varying degrees of prolonged water stress and that all size and age classes of River Red Gums had been affected.

"Flooding under current conditions now appears insufficient to provide the supply of water that is necessary for survival in this arid area. Further, the current flooding regime is not sufficient to leach salt from floodplain soils to counteract salt accumulation occurring between floods," the report says.

For example, a flood of 85,000Ml/day occurred on average 1 year in every 3.3 years under natural conditions and under current regulation these floods now occurred 1 year in every 10.8 years. Also, the duration of the floods is also much shorter.

"This presents a scenario of significant change to this landscape and has the potential to affect significant areas of the Murray River floodplain downstream from Mildura."

The report calls for urgent action to save the gums but warned that due to current climatic conditions and the existing operating rules for the River Murray system, there was no short term opportunity to improve the health of the trees.

Read the full media release at http://mdbc.rucc.net.au/mdbc/news_room/media_releases/media_articles.cfm The report is also available on the MDBC web site www.mdbc.gov.au

NEW TIMETABLE FOR HEALTHY RIVER MURRAY SYSTEM

The Murray-Darling Basin Ministerial Council, meeting in Toowoomba on 9 May, laid down a new timetable for realising its vision for a healthy River Murray system.

Taking into account community feedback about the time and process needed to make well informed decisions to achieve a healthy River Murray, the Council directed the Commission to bring to its November 2003 meeting a proposal for a first step decision that will deliver measurable and integrated ecological, social and economic outcomes.

It requires the proposal to be based on scientific and socio-economic evidence to be presented before the meeting and the estimated costs and benefits of the options considered.

The Council has stressed the importance of having sound knowledge, effective community engagement and the government support necessary, before considering its decisions on the water recovery targets, on the water recovery mechanisms to achieve them, and on the accountable management of the restored flow.

Over the following decade, the Murray-Darling Basin Ministerial Council expects to see a healthier river, a more prosperous and sustainable irrigation sector, and more efficient water resource management.

The vision for The Living Murray, agreed in April 2002, is "a healthy River Murray System, sustaining communities and preserving unique values." The Council in May 2003 reiterated its view that the evidence of the declining health of the River Murray is clear and demands action. For more information and a copy of the full communique go to the MDBC website at www.mdbc.gov.au

LATEST CAP IMPLEMENTATION REPORT RELEASED

The Murray-Darling Basin Council has approved the release of the 2001/02 Review of Cap Implementation Report - an annual report which documents water use within the Basin and assesses the five state and territory governments' compliance with the Cap.

The latest report identifies a number of strategic issues needing to be addressed. They include:

- the establishment of Cap targets in Queensland, New South Wales and the ACT (the Cap is a limit imposed on the volume of water which can be diverted from the rivers for consumptive uses);
- accreditation of models for Cap assessment; and
- quality management systems for collection and reporting of diversion data;

Work is progressing in Queensland, New South Wales and the ACT to establish Cap targets. In Queensland, draft Water resource Plans are out for public comment and discussions are required between the New South Wales and Queensland Governments to establish Caps for the Border Rivers.

Finalisation of a Cap for the ACT depends on the establishment of a water trading framework including rules, exchange rates, recording of entitlements and Cap adjustments. The report makes a number of recommendations affecting the ACT and New South Wales.

The full report is available at: http://www.mdbc.gov.au/naturalresources/policies_strategies/pdf/IAG_report_01-02.pdf

CORANGAMITE CRATER LAKES, JUST A LITTLE LESS THREATENED

Many Victorian limnos grew up studying the Crater lakes of the western district. Their geology, biology and chemistry, along with their special scenic strengths and weaknesses made them a rich source of inspiration and even myth. I think Brian Timms finally found the the missing bottom of Lake Bullen Merri.

A call to arms from local residents Fiona and Alun Morris, enabled many lLimnos of repute to submit to a review by RPD consultants, of the Corangamite Shire's interpretation of the local planning laws. Their loose, if not permissive approach had allowed several building permits to be issued for development within the craters, raising fears of not only visual blight but also water pollution and threats to the biota.

Although it has taken three years, Corangamite Shire has finally reviewed their planning laws and resolved to afford the lakes more protection. Submissions to their Amendment C8 closed on Monday August 25 with much public and scientific support for a less permissive approach. The CCMA and the EPA have also expressed their views that the water quality of the lakes should be afforded maximum protection.

Submissions to the Shire's advertised amendment covered issues such as:

Loose and ambiguous wording. (Saying 'should', instead of 'must') The need for the Councillors and Officers to receive some education on matters limnological and to read all the submissions to the RPD review. The eutrophication threat from nutrient enriched surface and groundwater from septic or other sewage systems. Prevention is better and cheaper than cure for water pollution. Costs of any rehabilitation should be met by the polluters. The very pollution sensitive nature of the ecosystems and their enormous scientific value. A comprehensive monitoring program to provide early warning of further problems (more jobs for limnos). The need to develop long-term management plans for the lakes to protect their many values.

After some initial reluctance to embrace change, it does appear that the ASL has played a big role in educating a formerly recalcitrant Corangamite Shire.

They have come a long way in three years and the issue is a good (but not yet ideal) model for the ASL and supporters to speak out on issues of concern to the community.

Stuart McCallum

NEW REGULAR LANDMARK RESEARCH UPDATES

Landmark - a research and development project funded by the Murray-Darling Basin Commission - issued the first of a regular monthly series of updates in May.

As a response to the evidence of environmental degradation in the Murray-Darling Basin, the Landmark project is looking for combinations of dryland land uses and farming practices that will assist producers to make a good living and create a healthy environment.

The primary objective of Landmark is: "to identify the need for land use and land management change and explore policy responses which may facilitate change in broadacre dryland regions in the Murray-Darling Basin". This will be done by using sound science to inform good policy.

The May issue looked at Landmark's latest activities and reported on issues such as evaluation of the policy discussion paper consultation process, assessing sustainability of landuse and management in the pilot regions, working out how to integrate all landmark's results and the project's future directions.

For more information and to subscribe to the free updates, contact David Clarke, Task Leader for Landmark Communication, Phone: 03 5348 4900, Email: david@efect.com.au or visit the Landmark website at http://www.landmark.mdbc.gov.au

ABS TO SURVEY WATER USE ON FARMS

The Australian Bureau of Statistics (ABS) will conduct a survey of water use and management on Australian farms later this year.

The survey is in response to strong demand for nationally comparable information on water use and related government programs.

The 12-page survey will be sent out in October to 9,500 farms and the reference period will be the 2002-03 financial year. Users may be able to fund additional sample or questions.

Most, if not all, of the farms involved in the 2003 Water Survey will also be included in the 2003 Agricultural Commodity Survey, so water use information can linked at the unit record level to agricultural production data.

The content of the 2003 Water Survey will be determined by the ABS on the basis of user consultations and the results of question testing. Results from the 2003 Water Survey will be published in the second half of 2004 and will provide information for each State and the Northern Territory.

The content of the survey is currently being developed but items being considered for collection include: water use; water management; irrigation techniques; irrigation scheduling tools; laser leveling (ha); use of drains, levees, etc.; and water storage.

Other areas under consideration are water entitlements and allocations; water trading; water pricing; environmental issues causing concern; factors affecting water management decisions; and use of fertilisers.

The survey will be aimed at agricultural businesses (that is, farms) that irrigate and which have an estimated value of agricultural production of more than $5,000. For more information visit the ABS website at www.abs.gov.au

LETTER PUBLISHED IN *THE AGE* ON THE THOMSON RIVER ISSUE

Deliverance

The Thomson River has done enough. Please don't demand any more from it. Way back in the 70's, the Latrobe Valley Scuba Club ran a few Deliverance style trips down the then wild Thompson River from Brunton's Bridge to Cowwar Weir. We rode on tractor tubes, wore our sharkskin wetsuits and bounced our way through the rapids.

Despite our primitive craft, we were able to appreciate the beauty of the river; its wild scenery, wild white water and wily water dragons. We made the life threatening trip as we wanted to appreciate the river before the Thompson Dam was built. We thought then, that it was a shame to damage the ecology of this river to flush Melbourne's toilets and to pollute Port Philip Bay.

Now it appears that even more water is to be "harvested" for the thirsty city. (*The Age* 11 August). This approach is clearly not sustainable. To deliver the river from this "evil", we have to use less water rather than harvest more. Let the river keep its environmental flows. Rainwater tanks, composting toilets, indigenous gardens, handy buckets and grey watering are the way of the future.

Stuart McCallum
17 Lowndes Rd Bannockburn Vic 3331
Ph (03) 5281 1601 ah, (03) 5226 8443 bh

WWF AUSTRALIA

WWF Australia, as part of its Murray-Darling Basin program, has produced a number of new publications with a focus on wetlands:

- 'Wetlands: under threat' - a brochure outlining the impact of some common land management practices on wetlands, and the direct and indirect ecological impacts of the main threats to wetlands.
- an A3 sized poster summarising the key threats to, and impacts on, wetlands.
- 'Wetlands: worth saving' - an A3 sized poster highlighting the value of wetlands.

These publications compliment the recently produced WWF brochure 'Wetlands in semi-arid and arid Australia'. Please email mwaschka@wwf.org.au to request copies of any of these items.

MOORABOOL RIVER WATER RESOURCE ASSESSMENT

Under the NAP (National Action Plan) for Salinity and Water Quality, the local Corangamite CMA have coordinated a broad study into the over-allocated Moorabool River. Sinclair Knight Merz (SKM) have now produced 3 reports which have been publicly and enthusiastically debated:

* Lower Moorabool River Weir Investigation. This looked at the values and impacts of the 10 small weirs on the West Moorabool below Lal Lal reservoir. There remains some debate over the effects of these weirs on the biological and geomorphologic processes of the river. The cost to remove them is about the same as the cost to maintain or modify them, so that the negative impacts are reduced while still permitting their use for irrigation.

* Groundwater Surface Water Interactions. This is a very interesting report discussing the impact of groundwater extraction (in the Bungaree WSP area) on the river's base flow into Lal Lal reservoir. Although more work and data is (as always) still required, it appears that for every litre of groundwater extracted, base flow is reduced by around 0.8 litre.

* Moorabool River Water Resource Assessment Stage A Report. This comprehensive report also includes the Groundwater report and went into considerable detail of the study area (East and West Moorabool Rivers (and all the major storages) down to Reedy Lake and Lake Connewarre). It also looked at the (rather controversial) impact of farm dams, the likely effect of future climate change, river flow modeling and environmental flows. This report was the topic for discussion at a Stakeholders meeting held on 27 August and was generally well received. The approach by the consultants to matching environmental flows to ecological processes is current best practice and should achieve the best results for the available water. As some streams dry up naturally, an appropriate environmental flow may be zero where flows are artificially maintained to channel water between reservoirs. The meeting concluded with a rather intense workshop session in which we allocated priorities to develop a short list of Options to Enhance Environmental Flows. Strong support was given to water conservation, recycling and demand reduction options, while storage augmentation (dam building) was rejected on the grounds that there would not be sufficient water to fill any new dams. No date or venue has been set for the next meeting. SKM will now evaluate and report (Stage B) on the chosen options.

Overview:
While irrigators from the Moorabool are often vilified for extracting excessive volumes of water from the over-taxed Moorabool system, we urban consumers could keep in mind the real breakdown of water use: From the approx. 50,000 MLpa the river catchment yields, 63% goes for urban use (Ballarat and Geelong area), 32% is held in farm dams, 3% is extracted as groundwater and 3% is used by private diverters.

If more water needs to be 'found' for environmental flows, it is easy to sympathize with those that suggest it should come largely from reduction in the urban demand, the biggest slice of the pie. What is the highest value adding option for the water; flushing the toilet and washing your socks and jocks or producing quality meat and wine? For us, it would not be too hard to choose between giving up eating and drinking or installing more rain tanks and a composting toilet. But the irrigators still need to consider how the water can be used more efficiently and how the impacts of the weirs on the biodiversity of the river can be reduced.

Stuart McCallum
smccallum@geelongcollege.vic.edu.au

ESTABLISHMENT OF A NATIONAL WATER INITIATIVE

On 29 August the Council of Australian Governments (COAG) agreed to the establishment of a National Water Initiative. A communiqué issued after the meeting said the initiative would:
- improve the security of water access entitlements;
- ensure ecosystem health;
- expand water trading; and
- encourage water conservation in our cities.

Recognising the declining health of the River Murray system in particular, COAG noted that member jurisdictions of the Murray-Darling Basin have agreed to provide new funding of $500 million over five years to address water over allocation in the Basin.

Forty per cent of this $500 million would be contributed by the Australian Government and 60 per cent by New South Wales, Victoria, South Australia and the Australian Capital Territory. Contributions are: Australian Government ($200 million), New South Wales ($115 million), Victoria ($115 million), South Australia ($65 million) and the Australian Capital Territory ($5 million). This funding would be subject to finalisation of details.

COAG reaffirmed its commitment to the 1995 National Competition Policy agreement.

For further information see the communiqué: http://www.dpmc.gov.au/docs/coag290803.cfm, Media release and audio grabs: http://www.ministers.dotars.gov.au/ja/releases/2003/august/a100_2003.htm

THE A-Z OF WATER TRADING ISSUES

Confused about how water trading works? Then here's a conference to help shed expert light on this complicated subject.

The A - Z of Australian Water Trading will cover the issues, impediments and opportunities in the development of Australia's water trading markets

To be held in Sydney; Darling Harbour on 29 and 30 September, the organisers say it will be a "concise and encompassing event where the major stakeholders will comprehensively discuss the real issues facing the development of Australia's water trade markets."

Presentations will also cover water trade developments from all over Australia and the USA, the role of banking and finance, discussions with government departments, banking, irrigation, farming and legal industry leaders to help carve out a future direction for the trade of water

For further information phone (02) 9080 4307 or www.ibcoz.com.au/watertrade

IRRIGATION CONFERENCE CALLS FOR PAPERS

The Irrigation Association of Australia (IAA) is calling for expressions of interest from anyone interested in presenting a paper at its 7th biennial conference to be held in Adelaide, Australia from 11-13 May 2004.

As 2004 marks the 21st anniversary of the formation of the Irrigation Association of Australia, the conference is aptly themed as "Coming of Age".

Organisers are seeking papers that offer solutions to issues in the irrigation industry such as "Irrigation and the Environment," "The Regulatory Environment," "The Practice of "Best Practice" and "Irrigation Futures."

Submissions should contain original research or ideas which have not previously been presented or published in any substantial form. Prospective speakers should also submit an abstract of their presentation.

All accepted papers and posters will be published in the Proceedings on the Irrigation Australia 2004 CD-Rom given to all delegates.

Expressions of Interest should reach the Organisers by 30 September and abstracts should be submitted by 13 November. Anyone interested in presenting a paper should register on the IAA website at http://www.irrigation.org.au/2004IrrigationAustralia-paperscall.htm For more information contact the conference organisers by fax 02 8234 1231 or email irrigation@etf.com.au

FASTS

FROM BRAIN DRAIN TO CAREER PATH (8 JULY 2003)

Australia's peak body for scientists and technologists welcomed the ALP's announcement (on 8 July) that a Labor Government would create 300 new three year fellowships for young scientists.

President of FASTS, Professor Chris Fell, said that this would help them become established in their new career. "These fellowships will provide a steady footing for young scientists at a stage when they need to build their careers," he said.

"At the moment young scientists are vulnerable to attractive offers from overseas. Too often the Australian experience forces them to move from one short-term contract to another, often at the cost of family dislocation."

Australia produces 1,000 new PhD graduates in science and technology each year.

Professor Fell said FASTS would look forward to seeing the detail of the policy. It was FASTS' view that such scholarships should be open not only to new PhD graduates, but also those who had gone overseas for several years after completing their degree.

"Science is an international activity, and we want young Australian scientists to spend time overseas to learn new approaches and develop international linkages," he said. "And when they are ready to come back, we need to provide a soft landing and the promise of secure employment."

He said that FASTS would like to see a complementary program to help young scientists establish careers in industry, as well as in research.

FASTS has proposed a program to place young scientists in industry, by meeting half the costs of their salary for the first two years. This would address help close the culture gap between research and industry, and encourage industry to make better use of science in developing new products and improving existing ones.

Professor Fell said the ALP proposal would complement existing Government programs such as the Federation Fellowship program. This program offers 25 fellowships a year to attract scientists of international quality to work in Australia.

Mr Toss Gascoigne
Executive Director
FASTS fasts@anu.edu.au

"SCIENCE MEETS PARLIAMENT" DAY
TUESDAY 14 and WEDNESDAY 15 OCTOBER

The fifth annual 'Science meets Parliament' Day will have a new element in the program: a special breakfast meeting for young scientists and young Parliamentarians.

Professor Chris Fell, President of the Federation of Australian Scientific and Technological Societies (FASTS), said that no-one over the age of 40 will be allowed into the room. "It's an opportunity for the professors and heads of innovative companies of the future to meet the next generation of cabinet ministers," he said.

"Scientists and Parliamentarians see each other in a new light since 'Science meets Parliament' began. The event has helped change the decision-making culture, and we want to build in the next generation. This is an event for all scientists". "It's most important that young people meet early in their careers, to develop the long-term links that could pay off so handsomely for Australia."

'Science meets Parliament' brings 180 scientists and technologists to Canberra for a day of one-on-one meetings with Parliamentarians. It also features a briefing day at the National Press Club. The NPC address this year will be a debate on science policy between Science Minister Peter McGauran, and Shadow Minister Kim Carr.

Professor Fell said it is an important time for science and research in Australia. "There are currently nine reviews or inquiries in science, higher education and research. They are expected to come together at the end of this year, and quite possibly lead to a new science commitment from the Government. "This would be a successor to the Prime Minister's *Backing Australia's Ability* statement of 2001, a Mark 2 version".

He said it was up to the science community to make its case in Canberra. "We need articulate scientists and technologists from around Australia to give first hand accounts to Parliamentarians of good science, and the opportunities this work creates.

"We are looking for enthusiastic and personable people who can present persuasive arguments to Parliamentarians. Ideally they will represent a cross-section of Australian science by gender, age and discipline".

FASTS COUNCIL MEETING
Council will be held on Thursday October 16 in Canberra, from 9 am to 12 pm. All Presidents of Member Societies (or their nominees) are invited. This is an important opportunity for all Societies to feed into FASTS priorities. I look forward to seeing you in Canberra for this important event.

Regards

Chris Fell
President

CONFERENCE CAPERS

AUSTRALIAN WETLANDS FORUM NO 3

The Third Australian Wetlands Forum was held at Banrock Station Wine and Wetlands Centre (SA) on 13 June 2003. Under discussion was Australia's commitment to the Ramsar Convention. Present at the forum were approx 40 individuals from around Australia, and 3 from New Zealand representing the New Zealand Department of Conservation. Those present were a mix of private landowners, representatives from non-government organisations (NGO's), Catchment Management Authorities and Boards, various State and Federal Government Departments and the Murray-Darling Freshwater Research Centre.

The morning was taken up by several informative lectures and talks. The first was by Max Finlayson who discussed Australia's role nationally and internationally. He gave a brief history of Australia's Ramsar involvement. In a nutshell, Australia is struggling to manage many of its wetland key sites, with this varying from State to State. With regard to the effective monitoring and wise use of wetlands, we have left the WISE USE of wetlands behind in that they are more bird orientated. The monitoring of other taxa (in particular aquatic taxa) has been often ignored, with the description of ecological character of wetlands lacking for many sites. Only recently has this been addressed for some sites.

He stressed there is a need to get information out, to bridge the gap between NGO's, scientists and public servants. There is a distinct lack of scientific input into current management plans and protocols, and the little science that is available is often not directly relevant to the on-ground needs. The science base of NGO's is often weak and they don't have the capacity to interpret the scientific information delivered by consultants in management plans.

Tony Sharley: the manager of Banrock Station discussed what Ramsar and the Business Sector (wetland NGO's) can do for each other in the creation of opportunities and to offer guidance in the conservation of wetlands. He highlighted the need to make Ramsar better known to both the business sector and to the general public.

Mike Harper: from the South Australian Department of Environment and Heritage, then proceeded to give a brief outline of his efforts to find information on the Chowilla site nominated for Ramsar listing. In short, there was little historical information for Ramsar sites with information often scattered through government departments, and State and Federal agencies. One important point he raised was that public consultancies do >66% of wetland work, often for community groups that lack scientific know how and knowledge, and are often short of funds. = have we missed any issues, what useable knowledge base are the community groups getting in return for their money, and where may such information be held...?

Eric Fisher: is a private landowner who farms a property in the western part of New South Wales. On his property is the Wilgara Wetland that he had listed under Ramsar, to maintain the ecological, environmental, and economic values of the land. Nearly 30% of water flows to the area are lost to the Macquarie Marshes that are 90% privately owned. However, as a private landowner he received little government support in listing his property. There is no backup or follow up by State Government for private citizens to list sites under the Ramsar Convention. Individuals within the public service were supportive, but not the organisation they belonged to. He put forward the idea that there is a need for a support structure for land owners.....to give advice etc.... to list their properties under the Ramsar Convention. Over 80% of Australia remaining wetlands are privately owned.

Rachael Kelleher: from the New Zealand Department of Conservation then talked briefly on their experiences on the fate of wetlands within New Zealand. In a nutshell New Zealand has lost 90% of their wetlands through land clearance, agriculture and drainage. Three Ramsar sites have been listed and Rachael went on to discuss briefly what actions had been undertaken to investigate/conserve one of them.

Following lunch there was a workshop to discuss "where to from here". Some of the points raised are listed below:

(A) The message from Ramsar is not clear and there is a need to close the gap between EA (Federal Govt), State Governments and Community groups.

(B) Target audience for Ramsar is everyone. Basically there needs to be a greater flow of information and communication between the various levels of Government and interest groups.

(C) That more was needed on the following:

Wetlands are currently investigated in isolation from each other, there is often a connectivity between many wetlands. *Monitoring of wetlands should be increased dramatically.* On-going monitoring as wetland ecological character may change over time. The provision of a focal point for the gathering of wetland information. At the moment it is scattered. Clear lines of responsibility need to be established between government agencies. Bridges between IUCN, State and Federal Biodiversity Acts need to be established. Incentives for private landowners established e.g. fencing, rate rebates and technical advice.

Conclusion: The Ramsar Convention is not just about the listing of sites, Environment Australia needs to get its message across better and to inform the general public. For example, the greater majority of those present at the Forum where unclear what Ramsar was all about. If we as scientists and public servants don't really know what RAMSAR does and is... how may the general public? Furthermore, quite a few people present at the Forum had some difficulty in accessing the Ramsar website maintained by EA. Basically there is a need for an increased and decentralised knowledge base, a need for nationally consistent information collection and responses, plus a need for consensus on local involvement.

From

Rob Walsh

FORTHCOMING CONFERENCES/WORKSHOPS

OVERSEAS

2003 – International Year of Freshwater

Fourth International Symposium on Phosphate in Sediments. Organised by the Asociaci F3n Espa Flola de Limnolog EDa the University of Sevilla, together with the University of Granada. This meeting will take place in Sevilla (Spain) from 9 to 12 September. If you are interested inform Laura Serrano (serrano@us.es) or Han Golterman golterman@wanadoo.fr

The 17th Biennial Conference of the Estuarine Research Federation (ERF) will be held 14 to 18 September, at the University of Washington in Seattle, Washington. The conference's theme is Estuaries on the Edge: Convergence of Ocean, Land, and Culture. For more information about ERF, please contact Joy Bartholomew at jbarth@erf.org or visit their web site: www.erf.org

International Conference on Water-Saving Agriculture and Sustainable Use of Water and Land Resources, to be held in Yangling, Shaanix, P.R. China from 26 to 29 October. Further information from the Conference Secretariat, Prof. Kang Shaozhong, kang62@public.xa.sn.cn

Lak International Training Course in Tropical Freshwater Zooplankton to be held at Christ College, Irinjalakuda, Kerala, India from 20 December to 5 January 2004. See website: http://www.geocities.com/klri98/ for more information.

2004

Southern Connections 2004, to be held at the University of Cape Town, Cape Town, South Africa from 19 to 23 January. Website: ‹http://www.uct.ac.za/conferences/sc2004› or Email: sc2004@botzoo.uct.ac.za for further information.

29th International Association of Theoretical and Applied Limnology 8 to 14 August. (SIL): Lahti, Finland. Website: sil2004@latkk.helsinki.fi

7th INTECOL International Wetlands Conference at Utrecht University, The Netherlands, July 2004. This Conference will be organized under the auspices of the International Association of Ecology (INTECOL) under the title "Wetland Science and Water Resources Management". Please visit the web site and bookmark it: ‹http://www.bio.uu.nl/INTECOL› www.bio.uu.nl/INTECOL

AUSTRALIAN

2003 – International Year of Freshwater

River*symposium* 2003 Sixth International River Management Symposium, "Urban Rivers - balancing the expectations", to be held from 2 to 5 September in Brisbane. See www.riverfestival.com.au/symposium

2003 National Conference of the United Nations Association of Australia will be held over two-days in Perth (WA) on 26 and 27 September. The theme of the conference is Fresh Water: *We'll all drink to that!* with a focus to highlight the importance of establishing and maintaining fresh water resources.

Reflect, Respect & React 2003 Symposium Series: Social Solutions for Environmental Futures to be held in Brisbane on 27 September, Canberra on 29 September, Melbourne on 30 September and Emerald on 2 October. An initiative of the CRC for Catchment Hydrology. For more information see http://www.catchment.crc.org.au/news or e-mail Cameron Neil via RRR03@environmentaladvocacy.org

The A-Z of Australian Water Trading Issues, impediments and opportunities in the development of Australia's water trading markets will be held at Darling Harbour (Sydney) on 29 and 30 September. For further information phone (02) 9080 4307 or www.ibcoz.com.au/watertrade

9th PUR$L National Conference Salinity under the sun - investigating prevention and rehabilitation of salinity in Australia, to be held from 29 September to 2 October at Yepoon, Qld. Phone (07) 3846 5858 or email: pursl@eventcorp.com.au

Global Developments in Water Industry Performance Benchmarking, organised by The Office of Water Regulation, to be held at the Hyatt Regency Perth from 29 September to 2 October. See Conference Website at: http://www.benchmarkingwater.wa.gov.au/

The **3rd Victorian Flood Management Conference** will be held in Horsham, Victoria, on the 8 to 10 October. The theme for the 2003 Conference is ***Healthy Floodplains Wealthy Future***. See: www.vicfloodconference.com.au

Water in Mining 2003 (The Role of Water in a Sustainable Minerals Industry), to be held at the Sheraton Brisbane Hotel from 13 to 15 October. Please click here to Register On-Line and view Registration Brochure: www.ausimm.com/wim2003/registration.asp

Science meets Parliament will be held in Canberra on 14 and 15 October. Water issues are firmly on the agenda this year and you can check out the details on the FASTS homepage http://www.fasts.org/

Soil and Groundwater Pollution - *Investigation, Remediation and Risk Assessment* to be held at New College, UNSW, Sydney from 5 to 7 November. For further information see http://www.groundwater.com.au/conf/CourseInfo.asp?CourseID=45

Integrated Catchment Management (ICaM) - 2003, organised by the Australian Water Association NSW Branch, to be held at the University of Western Sydney on 26 and 27 November. Further information from icam2003@awa.asn.au, or phoning (02) 9330 9458.

A Memorial Symposium and Field Trip in Honour of Bill Williams -organized by the University of Adelaide (to arrive in Warrnambool for the Joint ASL/NZLS meeting) from 28 to 30 November. For more information contact Mike Geddes on mike.geddes@adelaide.edu.au

Joint 42nd Annual Australian Society for Limnology Congress and The New Zealand Limnological Society, to be held in Warrnambool, Victoria from 1 to 5 December. Further information from Belinda Robson (brobson@deakin.edu.au) or Phone (03) 5563 3330.

Symposium on Urbanization and Stream Ecology, to be held at the University of Melbourne from 8 to 10 December. For further information contact: Conference Management, Old Physics Building, The University of Melbourne Phone (03) 8344 6389; Fax (03) 8344 6122 or http://www.conferences.unimelb.edu.au/urbanization_and_stream_ecology

ESA ECOLOGY 2003 - Ecological Society of Australia's 28th Annual Ecology Conference will be held at the University of New England, Armidale from 8 to 10 December. See http://www.ecolsoc.org.au

2004

15th MDFRC and CRCFE Taxonomy and Ecology Workshop, to be held at the Lake Hume Resort, Albury 10 and 11 February. Further information from John Hawking John.Hawking@csiro.au

Molluscs Course, to be held at the University of Wollongong from 8 to 21 February. Details can be found at http://www.uow.edu.au/science/biol/molluscs/

7th Biennial Conference of the Irrigation Association of Australia, to be held in Adelaide from 11 to 13 May. For more information contact the conference organisers by fax 02 8234 1231 or email irrigation@etf.com.au

International Commission on Irrigation and Drainage 2nd Asian Regional Conference, to be held at Moama (NSW) from 14 to 17 March. The theme of the conference is Irrigation in a Total Catchment Context, Sharing the River.

4th International Symposium on Extant and Fossil Charophytes, to be held at Robertson (NSW) from 25 to 27 September. Check the Symposium website at: www.uow.edu.au/science/geosciences/conferences/irgc04

ASL VOLUNTEERS

The following members have volunteered to speak as experts on behalf of the ASL.

If you wish to be included on the list or amend your contact details, please contact:

Dr Richard Marchant (ASL Secretary)
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Prof Angela Arthington:
in stream flows, ecology of exotic fishes, conservation of rare fishes.
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Mr Kent Hortle:
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ASL MEMBERSHIP FORM

Fill out the form below and send onto the Treasurer/Membership Officer (address below), or alternatively go to the ASL website (http://www.asl.org.au/asl_member.htm), follow the link to 'Membership application via the web'. Fill in the details on the form, including credit card details, and submit. ASL is not registered for GST, therefore ASL does not charge GST.

MEMBERSHIP FORM

Surname:.....

Given Name: .....

Title: .....

Department: .....

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Telephone: .....Fax: .....

Email:.....

Qualifications:.....

Membership: Member: ( ), Student Member: ( ), 10 Year Member: ( )

Limnological interests: .....

Student declaration:

I am a full time student at.....

Signed .....

Student status confirmed by Supervisor.....

Signed ..... Date.....

Australian Society for Limnology Inc, ABN 54 606 483 226

Membership Rates from 1 July 2003 are:

Member:	$ 50.00
Student Member:	$ 25.00
Institutional Members	$ 55.00
Ten Year Member:	$450.00

Method of Payment : Cheque ( ) Money Order ( ) Credit Card ( )

Please Debit my:

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Amount $..... Expiry Date .....

Name of card holder .....

Signature .....

Please Return to:

Margaret Hart
Treasurer/Membership Officer
PO Box 605
Mulgrave VIC 3170

Mobile 0419 506 254

ELECTRONIC NEWSLETTER APPLICATION FORM

If you are a member of the ASL and want to receive your newsletter electronically, then please fill in the form below. Members who do not want to receive an electronic version, and would rather still receive the paper version will continue to do so, but you are encouraged to also fill in and send the form below (we do not have plans to phase out the paper version).

I am a member of the ASL and my name is:.....

My email address is: .....

I would like to receive the ASL newsletter emailed in

- Rich Text Format (.rtf)[1] - Word compatible ☐
- In Portable Document Format (.pdf)[2] - Adobe Acrobat compatible ☐
- In another format (please state which other format you would like to receive the ASL newsletter in).

.....

[1] Rich Text Format (.rtf) is a format that can be opened in any word processor, although slight variations in layout may occur in different programs.

[2] Portable Document Format (.pdf) is a format that looks and prints exactly as the publisher intended. It can be opened using Adobe Acrobat viewer which is free and can be downloaded from their website.

Please Return to:

Margaret Hart
Treasurer/Membership Officer
PO Box 605
Mulgrave VIC 3170

Mobile 0419 506 254

REGIONAL EXECUTIVE MEMBERS 2002-2003

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